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ANALYSIS OF EXPECTED CONSEQUENCES FOR DEVELOPING COUNTRIES OF THE IUU FISHING PROPOSED REGULATION AND IDENTIFICATION OF MEASURES NEEDED TO IMPLEMENT THE REGULATION – PHASE 2

Final Report

4 May 2009

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ABBREVIATIONS AND ACRONYMS USED

ACP	African, Caribbean and Pacific Group of States
AEO	Approved Economic Operator
APRIS	ASEAN-EU Programme for Regional Integration Support
ASEAN	The Association of Southeast Asian Nations
BRIK	Timber Industry Revitalisation Body
CA	Competent Authority
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCIP	Customs Code's Implementing Provisions
CCSBT	Conservation of Southern Bluefin Tuna
CDS	Catch Documentation Scheme
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora.
CoO	Certificate of Origin
CoP	Conference of the Parties
DG FPPM	Directorate General of fishery product processing and marketing
DMM	Direction de la Marine Marchande
DoF	Department of Fisheries
DPCIA	Dolphin Protection Consumer Information Act
DPM	Direction de la Pêche Maritime
DPMA	Direction des Pêches Maritimes et de l'Aquaculture
EACCE	Etablissement Autonome de Controle et de Coordination Des Exportations
EC	European Community
EEZ	Exclusive Economic Zone
EU	European Union
FVO	Food and Veterinary Office
GoE	Government of Ecuador
GoI	Government of Indonesia
GoT	Government of Thailand
GT	Gross tons
HACCP	Hazard Analysis and Critical Control Point
IATCC	Inter-American Tropical Tuna Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas

IDCPA	International Dolphin Conservation Program Act
IMMP	International Marine Mammal Project
INP	Instituto Nacional de Pesca
IOTC	Indian Ocean Tuna Commission
IUCN	The world conservation union
IUU	Illegal, unreported unregulated
JICA	Japan International Cooperation Agency
MCS	Monitoring control and Surveillance
MFMR	Ministry of Fisheries and Marine Resources
MFRDB	Marine Fisheries Research and Development Bureau
MMAF	Ministry of Marine Affairs and Fisheries,
MMPA	Marine Mammal Protection Act
MoU	Memorandum of understanding
MSC	Marine Stewardship Council
RFMOs	Regional Fisheries Management Organizations
SADC	Southern African Development Community
SEAFDEC	Southeast Asian Fisheries Development Centre
SEAFO	South-East Atlantic Fisheries Organisation
SoE	State owned enterprise
SRP	Subsecretaría de Recursos Pesqueros
SSF	Small Scale Fisheries
TAC	Total Allowable Catch
ToRs	Terms of Reference
VMS	Vessel Monitoring System
WCO	World Customs Organisation

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Exchange rates used in this report

Year	Euro	USD
2002	1	0,94
2003	1	1,12
2004	1	1,23
2005	1	1,25
2006	1	1,25
2007	1	1,37
2008	1	1,48

EXECUTIVE SUMMARY

1. This report describes the findings of an evaluation of the expected impacts of Council Regulation (EC) No.1005/2008 of 29th September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing. The regulation introduces a new system of catch certification for consignments of fishery products for human consumption traded with the EC (exports and imports). From 1st January 2010, all marine fishery products (except aquaculture products and certain species) consigned by EC vessels and by third countries to the EC market must be accompanied by a certificate signed by the master of the originating fishing vessel stating that the products have been caught legally. The catch certificate must be validated by a Competent Authority of the flag state of the vessel. This study is intended to help third countries and the European Commission to respond to the need for the new administrative and control systems which will be required for implementation of these measures.

2. The study was commissioned by the Directorate General of Fisheries and Maritime Affairs of the European Commission under a framework contract "for performing evaluations, impact analyses and monitoring services in the context of fisheries partnership agreements concluded between the Community and non-member coastal states and more generally of the external strand of the common fisheries policy (FISH 2006-20)", operated by a consortium comprising Oceanic Développement (France) and Megapesca Lda (Portugal). The study was undertaken under the Specific Convention No. 15 "Analysis of the expected consequence for developing countries of the IUU fishing proposed regulation and identification of the measures needed to implement the regulation".

3. The objective of the study was to assess the consequences of the regulation, in particular the certification scheme, in different developing countries. It aims to identify the difficulties which those states would face in implementing it and what would be the expected costs and benefits of the system. On this basis, the study was intended to provide information as to the measures/arrangements that the selected developing states would have to put in place in order to implement the certification scheme.

4. The consultants followed a case study methodology as set out in the Terms of Reference in Annex 1. Missions were undertaken to eight case study countries: Namibia, Indonesia, Thailand, Morocco, Ecuador, Senegal, Mauritania and Mauritius in accordance with the ToRs. The duration of each field mission was approximately one week. In each third country the consultants met with key governmental, industry and NGO stakeholders with a view to assessing the capacity of the relevant institutions to implement a catch certification scheme in the context of the fishery sector activities undertaken. In particular this considered the different types of certification activities defined in the Regulation. Existing certification systems for international trade in fishery products were reviewed, especially those in relation to certification of origin, and compliance with conservation, sanitary or environmental conditions for trade. In addition, meetings with stakeholders were used to explore in more detail the foreseeable potential impacts of the IUU regulation, in terms of legal, economic, political, human resource, social and developmental impacts, as well as to investigate the options available to the third country for the development of procedures to implement the catch certification schemes.

5. In addition the consultants developed an outline methodology and undertook a quantitative analysis of the costs and benefits of the catch certification system in each country. The analysis compares the economic impacts of international trade on fishery products for a third country under potential future scenarios, based on different responses of a third country to the Regulation.

6. To comply with Regulation 1005/2008 arrangements catch certification in third countries should comprise two main activities. Activity 1: Validation of catch certificates relating to

catches undertaken by the third county vessels, landing both in the third country or in other countries ("flag state controls"); Activity 2: Provision of statements in relation to export and re-export of processed fishery products i.e. indirect importation to the EC (Article 14 and Annex 4 statements). In addition, in some cases, third countries may be requested to perform port state controls by the flag states of vessels which land in their ports. Not all activities will be required in each country; the requirements are determined by the pattern of fleet activity, flag state and origin of imports which supply the EC marketing chain. In relation to the eight case study countries, the main finding is that all have the conditions for at least partial implementation of the catch certification system, in terms of their capacity to meet some of the requirements of national fisheries control legislation. However only three (Namibia, Ecuador and Mauritius) have in place all of the necessary elements to achieve full implementation in the short term.

7. **Namibia's** marine capture fisheries sector is exclusively industrial. Namibia is well placed to respond effectively and rapidly to Regulation 1005/2008 in the short term with some minor changes to regulatory framework. Namibia may also need to make port state control arrangements if requested to provide information to the flag states of foreign vessels currently licensed to fish in its EEZ, and will need to strengthen import controls and traceability conditions in industry. Given the generally low risk of IUU fishing activities and generally high level of fisheries compliance in the Namibian EEZ, the IUU catch certification system is not expected to impact significantly on the resource conditions, and there are therefore few direct benefits identifiable to Namibia.

8. **Indonesia** has a large and varied fishery sector, with significant distant water fishing activities in international waters and large numbers of widely dispersed small scale fishers. Indonesia's main needs for implementation of the catch certification requirements relate to the validation of catch certificates in respect of Indonesian vessels landing in Indonesia and other third countries. This will require a substantial extension and strengthening of landing controls throughout numerous dispersed fishing ports. Certification in relation to smaller vessels under the jurisdiction of local government will be a major barrier requiring significant strengthening of the legal framework, raising significant constitutional and budgetary issues which can only be addressed in the long term. Currently Indonesia sustains significant levels of illegal fishing by vessels from other countries. Its vessels are also implicated in illegal fishing in the waters of neighbouring countries and in the Indian Ocean region. The effective implementation of the catch certification system by other third countries will therefore have a positive impact on Indonesia. The impacts also have to be considered in the context of the fleet dependency on the EC which is the lowest of all countries studied (c.15%). Experience with sanitary safeguard measures has demonstrated the sector's flexibility in being able to direct product to alternative markets when the regulatory environment for the EU market becomes too tough. The possibility of the catch certification requirement causing a further diversion of supplies to non-EU markets is therefore present, thus limiting the effect of the Regulation on IUU fishing by Indonesian vessels.

9. **Thailand** has a well developed fishery sector, with sophisticated and well founded supply chains (including national and distant water fisheries, and imports from more than 40 countries) and a highly developed export processing and distribution sector. However, the weakness of the fisheries management system and the high strategic dependency on imports present Thailand with a considerable challenge in the effective implementation of the catch certification system. There is a centralised fisheries administration, with well trained staff and access to financial resources for investment, which means that Thailand should be able to respond to the need for adapting the legal framework and institutional capacity for fisheries control in compliance with the IUU regulation. This could require the introduction of effective monitoring and control systems (specifically landing controls) for up to 15,000 additional vessels. The high dependency on imports as raw material for trade, and the high risk of laundering of IUU products via this route, means that Thailand will also need to upgrade systems of import controls and traceability. These controls are also required for sanitary, certification of origin and RFMO controls, and some of this information could be applied for the

purpose of catch certification. There are also potential barriers to be overcome in relation to implementing catch certification for small scale fisheries. Given the major strategic importance of the EC market to the Thai fishery sector, there is a strong incentive for implementation by this country. However due to its global integration, the success of the catch certification in terms of reducing illegal fishing with respect to fishery products from these sources of supply, will depend to significant extent on the capacity of other third countries to implement the necessary port and flag state controls. The cost to Thailand will be the possible loss of some supplies to processing presently derived from IUU sources, or at least the re-direction of these products to less profitable non-EC markets.

10. **Morocco's** fishery sector is highly dependent on, and proximate, to the EC market; significant parts of the fleet will be subject to the catch certification scheme, including small scale vessels. Morocco has a good framework for fisheries management and is not likely to face major difficulties in conforming with the requirements of the certification scheme. However the country is lacking investment in vessel monitoring and traceability systems, which, along with the associated development of human resources are the main requirements for implementation of the catch certification. The risk associated with IUU fishing in Moroccan waters or by Moroccan vessels is considered to be relatively low. Therefore the catch certification is likely to have only a modest impact on illegal fishing in this country. However past experience with the octopus fishery in Morocco has shown that improved control of the export supply chain can significantly improve compliance with regulations, resulting in indirect substantial benefits in terms of resource conditions and tax income.

11. Exports from the **Ecuadorean** fishery sector are mainly orientated to the EU market however exports to the USA and neighbouring markets are also substantial. EC trade from Ecuador is mainly canned tuna, tuna loins and large pelagic fish, supplied by national and foreign flagged fleets, and some imports from third countries. Trade in aquaculture products to the EC market is substantial and will not be impacted by a catch certification scheme. Ecuador has a well developed fisheries management system for the industrial vessels in particular, and has an established capacity to implement the catch certification system, including arrangements for port state controls with other third countries. However there will be a need to complete a planned extension of the landing control system in relation to small-scale long line vessels. The planned extension of the satellite VMS system to cover the entire fleet will facilitate this process. Given the generally low risk of IUU fishing activities in Ecuadorian waters, particularly in relation to products that are exported to the EU, the IUU catch certification system is not expected to impact significantly on the level of illegal fishing or resource conditions. The reliance of the tuna sector on imports to supplement raw material for exports may require some cooperation with other third countries as flag states.

12. **Senegal** has a high dependency on the EC market, and significant external trade in products derived from small scale fisheries. Of all the countries studied, Senegal also has the highest level of socio-economic dependency linked to the EC market, and compliance with the catch certification requirement is therefore a high strategic priority for this country. However existing fishery controls are ineffective, resulting in a high level of non-compliance, and excessive exploitation of the national resource and illegal fishing by Senegalese vessels in the waters of neighbouring countries. There is a need for a substantial re-organisation of the fisheries management and control framework, including a clarification of institutional responsibilities and communications, so as to create the conditions in which the catch certification system can be built. The main activities will be to update the regulatory framework, design procedures for landing controls, introduce systems of collaboration with neighbouring countries, establish means of vessel and catch monitoring and ensure conditions of traceability in the processing and distribution chain. Senegal will most probably need considerable technical assistance to bring these developments to fruition. While IUU fishing by foreign fleets in the national EEZ of Senegal is not considered to be of significant importance, IUU fishing by Senegal fleets both inside and outside the EEZ already has major social, economic and environmental consequences. However, as the regulatory

environment is tightened (moving away from an open access regime for the artisanal fleet) there is likely to be an increase in trade in legally caught fishery product, bringing longer term and sustainable benefits.

13. The fishery sector of **Mauritius** has a very high dependency on trade with the EC market, which accounts for 69% of exports by value, the majority of which is canned tuna sourced from regional imports. Compliance with the catch certification requirements of the IUU Regulation is therefore of strategic importance for employment and value added in fish processing. However, the catching sector only has a small number of vessels linked to this market. Mauritius has already developed relatively sound systems of landing and import control, and of sanitary and origin certification. It will therefore be able to implement a system of catch certification, requiring only some limited development of the regulatory basis and additional staffing. Some additional resources will also need to be allocated to ensure the traceability of imported raw materials for processing, especially if sources continue to diversify eg. from SE Asian fleets operating in the SW Pacific. Whilst there is a risk that some SE Asian longliners operating in the Indian Ocean may be engaged in IUU fishing, the numbers licensed to fish in the Mauritian EEZ have fallen significantly in recent years. Furthermore, these vessels are not linked to the EC market, and their activities do not fall within the scope of the IUU regulation.

14. **Mauritania** has a large and well developed industrial fishing industry with some 252 coastal and industrial vessels. Mauritania also licences substantial numbers of foreign vessels to operate in its EEZ (including up to 134 EC vessels operating under the terms of a Fisheries Partnership Agreement). Shore based processing activities are limited in scope to cold storage and freezing, with little value addition. Exports of fishery products are mainly to the EC, Asian and regional markets. About 43% of the external trade is with the EC. There are hardly any imports at present, although many exporters have difficulty sourcing raw material. The export of fresh fish is currently banned. Mauritania also has a substantial small scale fishery, with some 3,600 vessels and a significant production linked to exports. Mauritania has developed and applied a system of landing controls applied to industrial vessels, which will provide the foundation for validation of catch certification in relation to landings from Mauritanian flagged vessels, and for port state controls for foreign flagged vessels which tranship in Mauritanian ports. With some improvements to the system of traceability, data management and integrity of the certification systems, Mauritania should be able to meet most of the requirements of Regulation 1005/2008 in respect of industrial vessels. However, for exports to the Community derived from small scale fisheries, Mauritania does not at present have any suitable systems in place, and will only be able to meet the requirements of the regulation after taking the necessary steps to implement landing controls in line with national legislation.

15. The lessons learnt from the case studies suggest that all third countries will need at least to define a control system linked to the specific certification requirements. They will need to prepare regulations to define the catch certification system, and allocate additional resources to the associated landing and documentary controls (the activities described above) for strengthened, evidence- based validation of catch certificates. This may take some time, especially in less developed countries with weak fisheries control capacity for implementation of existing legal requirements. In some countries the task is complicated by several factors. These are:

    - state of development of fisheries MCS system to allow it to effectively meet its obligations as a result of national legislation and RFMO membership; in many third countries a significant barrier to implementation is likely to be the technical and administrative limitations to the fisheries MCS system, which is therefore not capable of guaranteeing the implementation of existing national legislation. This will require strengthening of legislation, human resources, and fisheries MCS capacity. However, the regulation does contain several important provisions which will support improvements to the catch certification activities in third countries, particularly in relation in relation to administrative cooperation and provision of

information to third countries regarding suspected IUU activities. These measures will help to improve effectiveness of the national fisheries control systems.

- traceability conditions in the distribution chain: most trade in fishery products by third countries is consigned by shore based establishments. The supply chain can involve a change of ownership. Keeping track of these transactions is an important pre-condition for the catch certification system, to ensure that catch certificates submitted with an export consignment do in fact represent the fish which it contains. However existing sanitary and origin certification requirements for trade are implemented in all third countries exporting fishery products to the EC, and these systems all have either expressed or implied requirements for traceability. EC traders also often specify traceability requirements, and many, but not all, export enterprises have developed a sufficient degree of traceability in response.

- degree of international integration of the fishery sector (dependency on distant water fishing, on foreign vessels fishing in the EEZ and on imports); significant numbers of vessels from third countries operate and land elsewhere than their flag state. Similarly, many countries also have significant levels of indirect trade with the EC, via processing establishments using imported raw materials. Current controls on origin of imported fish for re-export (for sanitary and tariff preference objectives) are generally only weakly implemented. These systems will need to be fully implemented if the catch certification requirements are to achieve the aim of preventing "laundering" of IUU fishery products via indirect imports to the EC.
- dependency on small scale fishing for EC supplies; in some third countries certain segments of small scale operators might be linked to supply to the EC market. In some cases this could give rise to difficulties in relation to the volume of certification and validation activity, and the need for more complex traceability measures to establish the integrity of the supply chain. Existing controls in this segment may be weak, and the Competent Authorities may need to consider establishing specific measures for certification of products from small scale fisheries[1].
- decentralisation of fisheries administration; in some countries fisheries jurisdiction is divided between central and local government, often on the basis of an arbitrary measure of vessel capacity. Local government controls are often weaker and more fragmented, and authorities lack capacity for international coordination. It will be difficult to ensure an adequate and standardised implementation of the catch certification system in these circumstances.

16. All countries to which the regulation will apply, will, by definition, meet the EC sanitary conditions, thus limiting sources of trade with the EC to products from fishery business operators in countries which meet the sanitary conditions. Third countries may also benefit from tariff preferences in their fishery product trade with the EC and have in place a system of certification of origin. Both of these systems require that the EC supply chain be subject to an official control of origin, to ensure that the fishery products come from authorised suppliers (in terms of the sanitary conditions, or rules of origin). In practice, as shown by the mission findings and reports from the Food and Veterinary Office of DG SANCO, conditions of traceability, and controls of origins are not always under full control of the Competent Authorities. This applies particularly in relation to the origin of indirect trade (imports from other third countries, processed and re-exported to the EC). Four of the case study countries have significant levels of such indirect trade; and their control of origin was found to be lacking or weak in several respects. There is a high risk of IUU fish "laundering" and/or tariff avoidance due to mis-declarations of origin on re-export to the EC. Few third countries (and none of the case study countries)

[1] During the closing stages of the project, the consultants were informed that the Commission has incorporated special provisions on small scale fishing in the proposed implementing rules, which are not taken into account in this report.

have ratified Annex K (certification of rules of origin) of the Kyoto Convention on International Convention on the Simplification and Harmonization of Customs Procedures which provides a minimum standard for operation of rules of origin controls.

17. The operational aims of the IUU regulation, EC sanitary controls, and certification of origin, in terms of supply chain integrity, and certification are fully coherent. There is a good potential for linkage of the controls in these areas. All require knowledge of origins and systems of traceability to be implemented, and all therefore provide a regulatory imperative for improved control of the supply chain. There is a strong case for a third country to use the same information regarding origins and distribution chain for sanitary, preferential origin and catch certification controls, and to ensure that these systems are more effectively coordinated between the different competent authorities involved.

18. Many countries are members of RFMOs and are bound to implement documentation systems in relation to trade in fishery products covered by the RFMO. Whilst the Regulation 1005/2008 provides potential for considering that the IUU catch certification requirements are met in respect of products which are already covered by an RFMO scheme, the potential benefit of linking to these systems is limited by the scope of the RFMO certification (in terms of species, nature of fishery products, and attestation). Most importantly, their species coverage is highly focused and, in most countries, covers only an small proportion of trade between third countries and the EC. Furthermore the RFMO systems are not always transparent, their standard of implementation is variable, and there are no standardised means of independent audit. Most existing RFMO schemes therefore appear to offer little opportunity at the present for being registered as meeting the specific requirements of Regulation 1005/2008.

19. On the other hand, the study also showed that where a sector has substantially implemented a voluntary certification scheme, some of these were found to provide the conditions for implementation of certain elements the IUU Regulation. Examples are the Marine Stewardship Council, the Earth Island Institute, British Retail Consortium and ISO 22000. All schemes have a “chain of custody” requirement, and third party certification thus guaranteeing integrity. Tuna canning sectors in several countries have developed extremely sound systems of traceability, largely in response to requirements from the European distributors of the products.

20. The direct short term impacts of Regulation 1005/2008 in the case study countries were assessed by a quantitative study of costs and benefits, based on estimates of the possible future changes in illegal fishing and supplies of fishery products for export. For each country the analysis considered three scenarios. The first scenario is the “*pre-regulation*” scenario, in which the country sustains costs due to IUU fishing. The second scenario is a “*compliance with regulation*” scenario which sustains recurrent costs associated with the operation of catch certification system resulting in a reduced level of IUU fishing with a commensurate impact on trade with the EC. The third scenario is a “*non-compliance with regulation*” scenario in which the third country is assumed not to comply with the regulation and loses access to the EC market for marine capture fishery products.

21. The eight case study countries include three of the top ten suppliers to the EC market. In total they account for about 19% of the EC fish imports (846,000 tonnes, valued at EUR2.7 billion, out of annual imports of c.EUR14 billion in 2006). Taking these countries as a group the consultants estimate that the impact of a successful implementation of the Regulation 1005/2008 in these countries (Scenario 2) would be to eliminate illegal catches in relation to the trade with the EC corresponding to about 27,000 tonnes of fish/year. This represents a net gain of about 3.2% in volume of trade in lawfully caught fishery products between the EC and these countries.

22. To achieve this, the total additional annual control costs sustained by the eight third countries was estimated at EUR5.9 million. The value added gained on the additional exports obtained was estimated to be EUR33.2 million. Overall, the cost benefit ratio is estimated at 5.6; that is for every EUR1 of costs incurred in implementing the catch certification measure, an increase in value added exports of EUR5.6 is obtained. The

cost advantage is estimated at EUR218/tonne, representing the average cost of elimination of one tonne of IUU fish. The implication is that the average additional cost of implementation will be EUR7/tonne of existing imports (from all sources) or EUR8/tonne on marine products. Assuming that compliance costs sustained by a third country's Competent Authority will be passed to industry, and then to the customer, the additional costs could represent an overall 0.26% increase in the average price of marine fishery products exported to the EC. As well as the direct short term benefits estimated by the model, Scenario 2 is also likely to generate long term economic benefits through improvements in the status of stocks concerned due to the reduction of illegal fishing. Additionally, some countries will recuperate additional tax export levies as a result of the measure.

23. Non-compliance with the Regulation could result in loss of access the EC market for marine capture fishery products, which would have significantly negative impacts. If this were to be the case in the eight third countries studied, there would be a decline in trade with the EC from 846,352 tonnes/year to 98,229 tonnes/year (trade in aquaculture products would be unaffected). Trade would be redirected to other, less profitable, markets with an associated loss in value added to the third countries estimated to be of the order of EUR228.9 million/year. This represents a 2.7% fall in the value of exports from the eight countries, or a 6.7% loss of value added. Clearly this would have a significant negative impact on incomes and employment in the fisheries sector, and other negative impacts on the macroeconomic framework (fish trade is often a major contributor to the balance of payments). In fact the impacts of non-compliance could be more severe than indicated, since this model does not take into account any impact on prices in the non-EC markets, which would be likely to fall as a result of re-direction of trade.

24. For countries with relatively low levels of dependency on the EC market, such as Indonesia, there would only be a modest impact of non-compliance (0.6% fall in export revenues, 1.6% loss in value added). This is because they are assumed to be able to find alternative markets at some 90% of the current EC prices (and that increased supplies do not impact on prices). Similarly, where a country has a high proportion of aquaculture products in its trade with the EC (such as Thailand) the impact of Scenario 3 is also is also limited (fall in export revenues of 1.3% and in value added of 3.3%). On the other hand, sectors with a high dependence on EC market, and with a majority of products from capture fisheries are much more exposed to the impacts of non-compliance. Non-compliance by Namibia, Senegal and Mauritius, which are in such a position would result in a critical loss of exports of up to 8 or 9% by value, and the loss of almost a fifth of the value added. For these countries, meeting the requirements of Regulation 1005/2008 can be regarded as a high strategic imperative.

25. Longer term impacts of the regulation will include improved sustainability of resources, better reporting of fish catches, better scientific recommendations, more effective fisheries management, better status of stocks, and increased yields for legal fishers. However these were not considered in the quantitative cost benefit analysis, since they are not exclusively linked to illegal fishing, and cannot be measured precisely in monetary terms.

26. The main risks associated with the regulation are considered to be that i) the regulation will further raise the barriers to market access for products from small scale fishers in less developed countries, adding to the recognised difficulty already faced by this sector of compliance with sanitary conditions; and ii) a demand for fraudulent catch certificates will develop, allowing exporters to pass off illegal supplies (in term of IUU non-compliances) as lawfully landed.

27. A previous study undertaken by the consultants[2] presented an identification of different groups of countries, on the basis of several criteria considered relevant to the implementation of the catch certification system under Regulation 1005/2008. The assessment of needs for catch certification in the case study countries has shown a need to reconsider this classification. For a classification to be of use in determining the nature and type of assistance to be provided to third countries, it should take into account the specific implementation requirements and capacities of that country. As the case studies have shown some countries have a well developed MCS capacity in place, and are able to implement a catch certification system easily and quickly (e.g. Mauritius, Ecuador and Namibia). Other countries do not, and are expected to have some difficulties (e.g. Senegal, Mauritania). Two other external factors also should be considered: the extent to which fisheries controls are decentralised, and the extent of trade dependency on small fisheries. This approach will lead to a more accurate identification of support measures to be implemented, since specific needs will be assessed on a case by case basis.

The study makes a number of recommendations regarding implementation of the Regulation.

1. In the short term it is recommended that third countries are informed in detail regarding the specific administrative and technical requirements for catch certification and validation, including legal framework, requirements for landing controls, procedures for determining origin, and a system of quantitative cross checks to identify presence and sources of non-compliant raw materials. Particular attention should be focused on the need for integrating information on origins between sanitary, certification of origin and catch certification functions. This activity should involve not only the third country's fisheries administration, but also trade, customs and sanitary authorities, with a view to developing effective coordination of information between functions. Fishing and processing industry should also participate in these events, since they will also need to be apprised of the potential need for investment (for example in complying with existing requirements for traceability systems).

2. To assist with timely implementation of the new measures, the Commission is recommended to consider the provisions of short term support to third countries to assess individual needs and help with implementation of an agreed programme of actions. Examples might be support for developing internal procedures, preparation of regulations for certification, design of traceability systems for products from small scale fisheries, or certification with respect to trade in fresh fishery products.

3. In less developed countries with weak fisheries controls, the Commission is recommended to consider supporting the longer term strengthening of MCS capacity, where this is likely to be a significant barrier to implementation. This consideration could include the launch of specific intervention projects, designed on a national or regional basis. There are opportunities for programming interventions through existing regional programmes e.g. ACP Fish II programme "Strengthening Fisheries management in ACP countries" or to take advantage of regional initiatives such as the 10-country Regional Plan of Action on IUU fishing under the auspices of the Asia Pacific Fisheries Commission (APFIC). A model for this approach is provided by the EDF funded EDF project "Strengthening fishery product health conditions in ACP countries" which has supported ACP countries to respond to EC sanitary controls applied to third countries. MCS strengthening measures may also be implemented through the budgetary support programmes within the frame of EC-third country Fisheries Partnership Agreements.

[2] Convention Spécifique n°12 : Analyse des conséquences de la proposition de réglement INN sur les pays tiers en développement et identification des mesures requises pour sa mise en œuvre, Phase 1 : Identification et classification des pays tiers les plus impactés, Projet de Rapport final, 15 mai 2008

4. One of the challenges to be addressed by some third countries is implementation of the catch certification system in relation to small scale fisheries. Some third countries with a high export dependency on small scale fisheries and decentralised fisheries management system may require additional support in order to address the additional level of communication, control and training resources required to introduce the catch certification system to this sector. It is recommended that these factors should be taken into account in the allocation of priorities and resources for assistance.

5. Furthermore, such third countries could consider adopting an approach in which the products from a defined small scale fishery, which meet certain criteria, can be considered for generic certification. This approach should only be applied where there is a limited risk of illegal fishery products entering the EC supply chain. A similar risk-based approach could be adopted for catch certification any group considered to present a reduced risk of illegal fishing. The steps in such a process might be:
   - identify the export marketing channels which link small scale fishers to the export market
   - define the participants in the supply chain (vessels, intermediate traders, export processors)
   - permit a lower level of traceability to be placed on the supply chain (for example to identify supplying landing site or cooperative, rather than individual vessel)
   - undertake periodic recorded checks to ensure the legality of catches and the integrity of the supply chain
   - validate catch certificates as being from supplied from approved supply chain for small scale fishers

6. To further support implementation by third countries, the Commission is recommended to promulgate generic tools which establish a framework for the catch certification system. These tools might include:
   - model regulations for certification system, traceability requirements etc
   - model traceability system for enterprises in the supply chain
   - model inspection forms for traceability and supply chain integrity
   - standard methodologies for assessing IUU risk
   - standard methodologies for assessing risk of supply chain integrity failure (e.g. empirical survey method for assessing proportion of product from non-certified origins.

7. To counter the risk of fraudulent validation of catch certificates by corrupt officials, the Commission is recommended to encourage third countries to adopt specific counter-measures. These should include both soft approach (information, awareness building, support for improved transparency of fisheries operations, transparency incentives etc) as well as a hard approach (specific cross checks, sampling and in-depth forensic investigation of specific export consignments, highly publicised prosecution of offenders). A significant multi-lingual resource in this respect, which deals with transparency in fisheries certification, is already published by the EDF project "Strengthening fishery product health conditions in ACP countries"[3]. It is recommended that this be employed in information dissemination activities to be undertaken by the Commission in the preliminary period of implementation.

8. Some countries have a substantial trade with the EC in fresh fishery products, consigned either long distance by air (such as Ecuador, Senegal) or short-haul by road (such as Morocco). Sometimes the delay between landing and despatch of a

[3] Guide On Designing And Implementing Measures To Promote Organisational Integrity And Address Corruption, Strengthening Fishery Products Health Conditions in ACP/OCT Countries, 2008, http://www.sfp-acp.eu/SFP_PDF/GuidesManualsCatalogues/HandbooksManuals/Anti-Coruption Guide English.pdf

consignment is very short (a matter of hours) and the Commission is recommended to consider ways to reconcile this trade with the requirement for a minimum 3 day notice of import, as required by the Regulation.

Résumé

1. Ce rapport présente les résultats d'une évaluation des impacts du Règlement du Conseil (CE) n° 1005/2008 du 29 septembre 2008 établissant un système communautaire destine à prévenir; à décourager et à éradiquer la pêche illicite, non-déclarée et non-réglementée (INN). Le règlement introduit un nouveau système de certification des expéditions de produits de la pêche destinés à la consommation humaine échangés avec la CE (importations et exportations). A partir du 1er janvier 2010, tous les produits de la pêche maritime (à l'exception des produits de l'aquaculture et de certaines espèces) échangés avec la CE devront être accompagnés d'un certificat signé du capitaine du navire de pêche à l'origine de la capture attestant que les produits ont été capturés légalement. Ce certificat de capture devra être validé par une Autorité Compétente de l'Etat du pavillon du navire en question. Cette étude a pour ambition d'aider les pays tiers et la Commission européenne à répondre aux besoins créés par la mise en oeuvre de ces mesures.

2. Cette étude a été demandée par la Direction Générale de la Pêche et des Affaires Maritimes de la Commission européenne sous le contrat cadre « pour la réalisation d'évaluations, d'analyses d'impacts et de services de suivi dans le cadre d'Accords de Partenariat dans le domaine de la Pêche conclus entre la Communauté et des Etats côtiers tiers et de manière plus générale, du volet externe de la Politique Commune de la Pêche (FISH-2006-20) » exécuté par un consortium incluant Oceanic Développement (France) et Megapesca Lda (Portugal). Cette étude a été entreprise sous la convention spécifique n° 15 « Analyse des conséquences prévisibles du règlement INN sur les pays tiers et identification des mesures requises pour sa mise en œuvre ».

3. Les objectifs de cette étude sont d'apprécier les conséquences du Règlement, et en particulier celles du schéma de certification des captures, dans différents pays tiers. Le but est d'identifier les difficultés que pourraient rencontrer ces Etats dans sa mise en œuvre, et quels seraient les coûts et les bénéfices du système. Sur cette base, l'étude doit fournir des informations sur les mesures / arrangements que les Etats en développement devront adopter de manière à mettre en oeuvre le schéma.

4. Les consultants ont réalisé cette étude à partir d'études de cas comme le prévoyaient les termes de référence en annexe 1. Des missions ont été réalisées dans 8 pays présélectionnés : Namibie, Indonésie, Thaïlande, Maroc, Equateur, Sénégal, Mauritanie et Maurice, en conformité avec le programme initial. Chaque visite de pays a duré environ 1 semaine. Dans chacun de ces pays, les consultants ont tenu des réunions avec les principales parties prenantes des secteurs publics, privés ou ONG dans le but d'apprécier les capacités nationales à mettre en œuvre le système de certification des captures dans le contexte particulier de leurs secteurs de la pêche. Les différents systèmes de certification existants pour les échanges internationaux ont été examinés, et plus particulièrement ceux concernant la certification de l'origine et le respect des normes de conservation, sanitaires ou environnementales. Par ailleurs, les entretiens sur place ont été utilisés pour apprécier en détail les impacts prévisibles du règlement INN en termes réglementaires, économiques, politiques, ressources humaines, sociaux et sur le développement, ainsi que pour approfondir les options possibles pour le pays tiers pour le développement de procédures de mise en œuvre du schéma de certification.

5. Par ailleurs, les consultants ont développé un cadre méthodologique et entrepris une analyse quantitative des coûts et des bénéfices du système de certification dans chaque pays. L'analyse compare les impacts économiques des échanges internationaux de produits de la pêche des pays tiers sous différents scénarios probables basés sur la réponse de ces pays aux exigences du Règlement.

6. Afin de respecter les termes du Reg (CE) 1005/2008, le système de certification dans les pays tiers devrait inclure deux activités principales. Activité 1 : validation des certificats de capture concernant les captures réalisées par les navires sous pavillon et

débarquant soit dans le pays tiers soit à l'étranger (contrôle de l'Etat du pavillon), Activité 2 : fourniture de déclarations relatives à l'exportation et à la réexportation de produits de la pêche transformés, i.e. exportation indirecte vers la CE (Article 14 et certificat en annexe 4). Par ailleurs, dans certains cas, les pays tiers pourront être appelés par les Etats de pavillon à réaliser des contrôles en tant qu'Etat du port des navires qui y débarquent. Toutes ces activités ne seront pas nécessairement requises ; les besoins sont déterminés par les types d'activité des flottes de pêche, les Etats de pavillon et l'origine des importations de matières premières qui servent à alimenter la filière export vers la CE. D'après les résultats des 8 études de cas de pays tiers, la principale conclusion est que toutes les conditions sont remplies pour au moins une mise en œuvre partielle du schéma de certification en raison des capacités nationales disponibles pour mettre en œuvre la réglementation nationale en matière de contrôle. Cependant, seuls trois pays tiers (Namibie, Equateur, Maurice) ont tous les éléments en place pour une mise en œuvre complète dans le court terme.

7. Le secteur de la pêche de la **Namibie** est exclusivement industriel. La Namibie est bien placée pour répondre rapidement et de manière efficace aux exigences du Reg (CE) 1005/2008, moyennant cependant quelques ajustements mineurs du cadre réglementaire. La Namibie pourrait devoir mettre en place des contrôles au port si des Etats de pavillon de navires licenciés pour pêcher dans sa ZEE le demande, et devra également renforcer le contrôle de ses importations et les conditions de traçabilité dans son industrie. Etant donné la faible exposition du pays au risque INN, et de manière générale, le haut niveau de respect des règles par les opérateurs dans la ZEE, le règlement INN aura peu d'impacts sur l'état de la ressource. Par conséquent, peu de bénéfices sont attendus du règlement.

8. **L'Indonésie** possède un secteur de la pêche important et varié avec une activité significative dans les eaux internationales et un nombre important de barques artisanales reparties sur tout l'archipel. Les principales exigences du règlement pour l'Indonésie concernent la validation des certificats de captures des navires nationaux débarquant sur le territoire national et à l'étranger. Ceci demandera une extension substantielle et un renforcement des contrôles au débarquement dans des sites très nombreux et dispersés. La certification des captures des navires artisans tombant sous la juridiction des autorités provinciales constituera une barrière importante demandant un renforcement sensible du cadre réglementaire avec des implications constitutionnelles et budgétaires qui ne pourront être résolues que dans le long terme. Actuellement, l'Indonésie souffre d'une incidence importante de la pêche INN de la part de navires étrangers. Les navires nationaux sont également impliqués dans des pratiques de pêche INN dans les eaux de pays voisins et de la région de l'océan indien. La mise en œuvre effective du schéma de certification par les autres pays tiers aura par conséquent des impacts positifs pour l'Indonésie. Les impacts doivent également tenir compte de la faible dépendance des flottes vis à vis d'un accès au marché de la CE, qui est le plus faible parmi les pays considérés (env. 15%). L'expérience issue des mesures de protection sanitaire a démontré la capacité du secteur à trouver des marchés alternatifs quand l'environnement réglementaire de l'accès au marché européen devient trop difficile. La possibilité que le système de certification engendre un ciblage accru de ces autres marchés non-UE est donc réelle, limitant par conséquent les impacts du règlement INN sur les navires indonésiens.

9. **La Thaïlande** possède un secteur de la pêche bien développé, avec une chaîne d'approvisionnement sophistiquée et bien ancrée (incluant les pêcheries dans les eaux nationales et en haute-mer, et des importations en provenance de plus de 40 pays) ainsi qu'une industrie de transformation et de commercialisation très développée. Cependant, la faiblesse du cadre de gestion du secteur ainsi que la dépendance stratégique sur les importations seront susceptibles de poser des problèmes importants à la Thaïlande pour la mise en œuvre du schéma de certification. La Thaïlande dispose d'une administration du secteur de la pêche centralisée, avec un personnel bien formé et un accès à des budgets d'investissement, ce qui signifie que le pays pourra répondre aux besoins en matière d'adaptation du cadre réglementaire et de renforcement des capacités institutionnelles en matière de contrôle des pêche afin de pouvoir répondre

aux exigences du règlement INN. Ces besoins pourraient comprendre une amélioration des systèmes de suivi et de contrôle (spécifiquement des contrôles au débarquement) applicables à près de 15 000 navires. La dépendance élevée de l'industrie vis-à-vis des importations de matières premières pour l'export, et le risque élevé de blanchiment de captures INN par cette filière, fait que la Thaïlande aura également besoin d'améliorer ses systèmes de contrôles des importations et de traçabilité. Ces contrôles sont déjà exigés dans le cadre de la certification sanitaire, dans celui de la certification de l'origine et dans le cadre des ORGP. Le futur système de contrôle de la validité des certificats de capture pourra s'appuyer sur ces procédures existantes. La Thaïlande aura également des difficultés potentielles à résoudre pour la mise en œuvre du schéma de certification pour les pêcheries artisanales. Compte tenu de l'importance stratégique du marché de la CE pour le secteur de la pêche thaïlandais, il existe un fort incitatif au respect du règlement. Cependant, étant donnée son intégration dans une filière globalisée, le succès du système de certification pour réduire l'incidence de produits d'origine INN dans les sources d'approvisionnement dépendra en grande partie des capacités des pays tiers fournisseurs à mettre en place les contrôles des navires du pavillon et dans leurs ports. Le coût de la réglementation INN pour la Thaïlande pourra intégrer la perte possible de sources d'approvisionnement s'appuyant actuellement sur des pratiques de pêches INN, ou tout au moins une moins-value issue de l'exportation de tels produits sur des marchés non-UE moins rémunérateurs.

10. Le secteur de la pêche du **Maroc** est très dépendant, et proche, du marché européen. Une partie importante de la flotte sera concernée par le schéma de certification, y compris la flotte artisanale. Le Maroc dispose d'un cadre de gestion des pêches performant et n'aura pas de difficultés majeures à se conformer aux exigences du règlement. Cependant, il manque au pays des investissements dans le système de suivi des flottes et de traçabilité, qui avec le renforcement des ressources humaines, formeront l'essentiel des besoins pour la mise en œuvre du système de certification. Le risque INN associé aux navires marocains exerçant dans la ZEE nationale est estimé relativement faible. Par conséquent, la certification des captures aura vraisemblablement des impacts modérés sur la pêche illégale dans le pays. Cependant, l'expérience passée avec la pêcherie de poulpe marocaine a montré que des contrôles renforcés de la filière export peuvent améliorer le respect des règles, résultant en des bénéfices indirects substantiels sur la condition de la ressource et sur les rentrées fiscales.

11. Les exportations de **l'Equateur** sont principalement tournées vers le marché de l'UE mais les exportations vers les USA et les pays voisins sont également importantes. Les importations dans l'UE en provenance de l'Equateur sont principalement des conserves de thons, des longes de thonidés et des grands pélagiques débarqués par les flottes nationales ou étrangères, avec quelques importations de pays tiers. Les exportations de produits de l'aquaculture vers le marché de l'UE sont élevées et ne seront pas concernées par le système de certification des captures. L'Equateur a un système de gestion des pêches bien développé pour les navires industriels en particulier, et a la capacité de mettre en oeuvre le système de certification, y compris des échanges d'information sur le contrôle au port avec d'autres pays tiers. Cependant, il existe un besoin d'entreprendre l'extension déjà planifiée des contrôles au débarquement des navires palangriers artisanaux. L'extension prévue du système VMS à toute la flotte facilitera ce processus. Etant donné l'exposition faible au risque de pêche INN dans les eaux équatoriennes notamment pour les espèces qui entrent dans les flux vers l'UE, le système de certification des captures n'aura pas d'impacts sensibles sur le niveau de pêche illégale ou sur l'état de la ressource. La dépendance de l'industrie thonière vis-à-vis des importations pour la fourniture de matières premières destinées à l'export après transformation pourra demander l'établissement de coopérations avec d'autres pays tiers de pavillon.

12. **Le Sénégal** est dépendant d'un accès au marché européen avec une proportion sensible des produits qui provient de la pêche artisanale. De tous les pays tiers concernés, le Sénégal est celui est le plus dépendant socio-économiquement d'un accès au marché de l'UE. Le respect des règles du système de certification des

captures constitue par conséquent une priorité élevée pour le pays. Cependant, le contrôle des pêches est peu efficace, avec pour conséquence un haut niveau de non-respect et une exploitation excessive des ressources nationales et des pratiques de pêche illégales par les navires sénégalais dans les eaux des pays voisins. Il existe un besoin de réformer en profondeur du cadre de gestion et de conservation des ressources, incluant une clarification des responsabilités institutionnelles et des modalités d'échange des informations, afin de créer les bases du système de certification. Les principales actions à envisager comprennent une mise à jour du cadre réglementaire, la définition de procédures de contrôles au débarquement, l'échange d'informations avec les pays voisins et la mise en place de conditions de suivi de la traçabilité des produits dans la chaîne de commercialisation. Le Sénégal aura probablement besoin d'une assistance technique importante pour cette réforme. Si la pêche INN par des navires étrangers dans les eaux du Sénégal n'est pas considérée comme sensible, la pêche INN par des navires sénégalais dans les eaux nationales et en dehors de la ZEE a des conséquences sociales, économiques et environnementales sensibles. Cependant, on relève que le régime de gestion des flottes est en train d'être resserré (abandon du système de libre accès pour la pêche artisanale), ce qui augmentera vraisemblablement le commerce de produits capturés légalement, avec en corollaire des bénéfices pour la filière dans le long terme.

13. Le secteur des pêches de **Maurice** est très dépendant d'un accès au marché européen qui représente 69% des exportations en valeur. Les échanges concernent principalement des conserves de thonidés préparées à partir de matières premières importées de pays de la région. Le respect des règles du système de certification des captures est par conséquent d'une importance stratégique pour conserver l'emploi et la valeur-ajoutée dans le secteur de la transformation. Seul un nombre restreint de navires de la flotte de pêche nationale est dépendant du marché européen. Maurice dispose déjà des procédures efficaces de contrôles des débarquements et des importations, et de certification de l'origine et des conditions sanitaires. Le pays sera ainsi capable de mettre en œuvre le système de certification moyennant quelques ajustements du cadre réglementaire et un renforcement des ressources humaines. Des moyens supplémentaires devront être affectés de manière à mieux assurer la traçabilité de la matière première importée surtout si le pays continue de diversifier ses sources d'approvisionnement à partir des flottes asiatiques opérant dans le Pacifique Sud. Il existe un risque que des palangriers asiatiques exploitant l'océan indien se livre à la pêche INN mais on note que le nombre de ces navires licenciés pour pêcher dans les eaux de Maurice a chuté récemment. Par ailleurs, ces navires ne sont pas liés au marché de la CE et leurs activités ne tombent donc pas dans le champs d'application du règlement.

14. La **Mauritanie** possède une flotte de pêche importante avec quelques 252 navires de pêche côtière et industrielle. La Mauritanie accorde également des licences à des intérêts étrangers pour pêcher dans sa ZEE (incluant jusqu'à 134 navires de la CE exploitant les possibilités négociées sous l'accord bilatéral). Les industries à terre sont limitées à de la congélation et du stockage en froid, avec peu de valeur ajoutée générée. Les exportations de produits de la pêche sont dirigées vers la CE, l'Asie et les marchés régionaux. Le marché européen représente environ 43% des exportations totales. Le pays importe très peu de produits de la pêche bien que la plupart des industriels aient des difficultés à trouver de la matière première. Les exportations de poissons frais sont actuellement interdites. La Mauritanie a également un secteur de la pêche artisanale important avec quelques 3 600 unités dont une proportion significative alimente la filière export. La Mauritanie a développé une procédure de contrôle des navires industriels qui fournira les bases du système de validation des certificats de capture applicable aux navires nationaux, et au contrôle au port des navires étrangers qui transbordent dans les ports mauritaniens. Moyennant quelques améliorations du suivi de la traçabilité, de la gestion des informations et de l'intégrité des certificats, la Mauritanie pourra respecter les requis du Reg (CE) 1005/2008. En ce qui concerne l'exportation des produits de la pêche artisanale, la Mauritanie n'a actuellement aucun système de suivi en place, et ne pourra être en conformité avec les exigences du

règlement qu'après avoir pris des mesures pour contrôler les débarquements comme l'exige d'ailleurs la réglementation nationale.

15. Les leçons tirées des études de cas suggèrent que tous les pays tiers devront au minimum développer un système de contrôle spécifique en relation avec exigences du système de certification des captures. Les pays tiers devront préparer des textes réglementaires pour définir le système de certification des captures, et prévoir des ressources additionnelles pour les contrôles associés (les activités décrites ci-dessus) afin de pouvoir disposer des éléments renforcés de preuve nécessaires à la validation des certificats. Ce processus pourra prendre un certain temps, surtout dans les pays les moins avancés qui ne disposent que de faibles capacités pour veiller au respect de la réglementation nationale. Dans quelques pays tiers, la tâche est compliquée par plusieurs facteurs qui sont :

    - l'état de développement du dispositif de SCS qui permet aux autorités du pays de remplir leurs obligations découlant de la réglementation nationale et de l'adhésion aux ORGP; dans beaucoup de pays, le principal obstacle à la mise en oeuvre du Reg (CE) 1005/2008 sera vraisemblablement les limites techniques et administratives du système de SCS qui ne permettent pas de veiller au respect des normes nationales. Cela demandera un renforcement de la législation, des ressources humaines et des capacités de contrôle. Cependant, le règlement prévoit plusieurs clauses importantes destinées à soutenir la validation des certificats de capture dans les pays tiers, avec en particulier l'établissement d'une coopération administrative et la communication d'informations sur des suspicions d'activité INN dans leurs pays. Ces mesures favoriseront l'amélioration de l'efficacité des systèmes nationaux de contrôle des pêches.

    - Le suivi de la traçabilité dans la chaîne de distribution ; la plupart des produits exportés par les pays tiers sont préparés dans des établissements à terre. La chaîne d'approvisionnement entraîne des changements de propriété. La conservation des traces de ces échanges est une précondition importante du système de certification de manière à s'assurer que les certificats présentés au moment de l'exportation correspondent bien aux produits présents dans le lot. Cependant, les mesures relatives à la certification de l'origine et au respect des règles sanitaires qui sont mises en œuvre dans tous les pays tiers qui exportent vers la CE exigent également une vérification de la traçabilité. En outre, les acheteurs européens ont souvent des exigences particulières en la matière et la plupart des entreprises exportatrices, si ce n'est l'intégralité, ont développé des systèmes internes en conséquence.

    - le degré d'intégration internationale de la filière nationale (dépendance vis à vis de flottes lointaines, de flottes étrangères opérant dans la ZEE ou de l'importation) ; des nombres importants de navires de pays tiers travaillent et débarquent en dehors de leurs pays d'origine. De la même manière, plusieurs pays exportent indirectement vers la CE en approvisionnant des usines de transformation utilisant leurs matières premières. Les procédures actuelles de contrôle de l'origine du poisson importé pour réexportation (pour des aspects sanitaires ou de respect des règles tarifaires) sont généralement peu fiables. Ces procédures devront être totalement mises en œuvre si les exigences du règlement du certificat de captures sont de prévenir le blanchiment de captures d'origine INN via l'exportation indirecte vers la CE.

    - la dépendance vis à vis du secteur artisanal pour l'alimentation de la filière export vers la CE. Dans certains cas, cela peut générer des difficultés supplémentaires en relation avec le nombre important de certificats à gérer et valider, et en relation avec les mesures plus complexes à mettre en oeuvre pour s'assurer de la

traçabilité des produits[4]. Les contrôles des activités de cette filière peuvent être insuffisants, et l'Autorité compétente pourrait avoir à établir des mesures spécifiques pour la certification des produits de la pêche artisanale.

- o la décentralisation de l'administration des pêches ; dans quelques pays, la juridiction sur le secteur de la pêche est divisée entre les autorités centrales et locales, le plus souvent sur la base de critères arbitraires portant sur la capacité des navires. Les contrôles par les autorités locales sont le plus souvent insuffisants et les autorités n'ont pas les capacités pour une coordination internationale. Il sera difficile de garantir une mise en œuvre adaptée et standardisée de la mesure de certification des captures dans ces cas précis.

16. Tous les pays tiers qui sont concernés par ce règlement doivent, par définition, respecter les règles sanitaires de la CE, ce qui limite les échanges à ceux avec des opérateurs basés dans des pays tiers qui sont agréés. Les pays tiers peuvent également bénéficier d'avantages tarifaires ce qui sous-entend un système de certification de l'origine des produits. Ces deux dispositifs exigent que la filière exportatrice vers la CE puisse être sujette à un contrôle officiel de l'origine des marchandises pour s'assurer qu'elles proviennent bien de fournisseurs autorisés. En pratique, et comme le démontrent les résultats des missions effectuées ainsi que les rapports d'inspection de l'Office Alimentaire et Vétérinaire de la DG SANCO, les conditions de traçabilité et de contrôle de l'origine échappent parfois aux Autorités. Ceci est particulièrement valable pour l'origine des produits concernés par l'exportation indirecte (importations d'autres pays tiers, transformation et expédition vers la CE). Quatre des pays sujets à études de cas ont de telles filières d'exportation indirecte et le contrôle des origines est apparu manquant ou faible sur plusieurs aspects. Il existe un risque élevé de blanchiment des captures INN et/ou de tentatives de contournement des règles d'origine grâce à de fausses déclarations sur l'origine des produits réexportés vers l'Europe. Peu de pays tiers, et aucun des pays tiers étudiés, ont ratifié l'annexe K (certification des règles d'origine) de la convention de Kyoto sur la simplification et l'harmonisation des procédures douanières qui pose des standards minimaux pour le contrôle de l'origine des produits.

17. Les objectifs opérationnels du règlement INN, des contrôles sanitaires et de la certification de l'origine sont pleinement cohérents. Il existe des perspectives de synergies des contrôles dans ces domaines. Tous ces dispositifs exigent une connaissance de l'origine et la mise en œuvre de systèmes de traçabilité, et par conséquent un impératif réglementaire allant vers des contrôles renforcés de la chaîne d'approvisionnement. Les pays tiers ont ainsi intérêt à utiliser la même information concernant l'identification de l'origine et le suivi des filières pour la certification sanitaire, de l'origine préférentielle et de la légalité des captures et s'assurer que ces dispositifs sont mieux coordonnés entre les différentes autorités compétentes.

18. Plusieurs pays tiers sont membres d'ORGP et sont dans l'obligation de mettre en oeuvre les systèmes de documentation adoptés pour le suivi des échanges des produits de la pêche concernés. Bien que le Reg (CE) 1005/2008 prévoit l'équivalence dans certains cas des certificats de captures avec ceux des ORGP, les bénéfices possibles sont limités par le champs restreint des certifications ORGP (en termes d'espèces couvertes, de nature des produits concernés, et d'informations à valider). La couverture en termes d'espèces est très ciblée et ne concerne qu'une petite partie des échanges avec la CE. Par ailleurs, les schémas des ORGP ne sont pas toujours transparents, leurs niveaux de mise en œuvre sont variables et il n'existe pas de systèmes d'audit externe indépendant. Peu de schémas de certification des ORGP

[4] Lors des dernières étapes de cette étude, les consultants ont été informés que la Commission a intégré des dispositions spécifiques tenant compte du cas de la pêche artisanale dans sa proposition de règlement d'application et dont il n'est pas tenu compte dans cette étude.

existants sont susceptibles de présenter le même niveau de garanties que ceux demandés par le Reg (CE) 1005/2008.

19. L'étude a cependant montré que quand une filière s'est engage dans un système de certification volontaire, elle peut bénéficier de certains des éléments demandés par le règlement INN. On peut citer comme exemple le Marine Stewarship Council, l'Earth Island Institute, le British Retail Consortium et la norme ISO 22000. Tous ces schémas ont des exigences vis-à-vis de la « Chaîne de Garantie d'Origine » dont l'intégrité est garantie par des auditeurs externes. Les usines de transformation du thon en conserves ont développé des systèmes de traçabilité très fiables, souvent en réponse à des exigences des distributeurs européens de leurs produits.

20. Les impacts directs à court terme du Reg (CE) 1005/2008 sur les pays sujets à études de cas ont été estimé par le biais d'une évaluation quantitative des coûts et des bénéfices, basée sur une estimation sur des modifications possibles de l'incidence de la pêche illégale et de l'approvisionnement en produits de la pêche pour l'exportation. Pour chaque pays tiers, l'analyse a intégré trois scénarios. Le premier scénario est un scénario « *pré réglementaire* » sous lequel le pays supporte les coûts de la pêche INN. Le second scénario dit de « *respect du règlement* » suppose que le pays tiers supporte les coûts récurrents de la certification et aboutit à un niveau réduit de pêche illicite avec un impact proportionnel sur les exportations vers la CE. Le troisième scénario considère un « *non-respect de la réglementation* » qui conduit le pays tiers à perdre l'accès au marché européen pour les produits de la pêche.

21. Les huit pays étudiés comprennent trois des dix premiers fournisseurs de la CE. Au total, ils totalisent environ 19% des importations de produits de la pêche dans la CE (846 000 tonnes, d'une valeur de 2.7 milliards EUR, sur un total des importations approchant les 14 milliards EUR en 2006). En considérant ces pays comme un groupe, on estime que le scénario de mise en œuvre réussie du Reg (CE) 1005/2008 conduirait à éliminer du commerce avec l'UE environ 27 000 tonnes de poissons par année. Ceci représente un gain net de 3,2% du volume des échanges de produits de la pêche légaux entre la CE et ces pays tiers.

22. Pour parvenir à ce résultat, les coûts additionnels de contrôle supportés par ces 8 pays ont été estimés à 5,9 millions EUR. La valeur ajoutée générée par ces exportations supplémentaires a été estimée proche de 33,2 millions EUR. Globalement, le rapport coût bénéfice est d'environ de 5,6, ce qui signifie que chaque 1 EUR investi dans les coûts de mise en œuvre de la certification des captures génère un valeur-ajoutée de 5,6 EUR par la filière export. L'avantage en terme de coût est estimé à 218 EUR / tonne, ce qui peut être assimilé au coût de l'élimination de 1 tonne de poissons d'origine INN. La conséquence est que coût additionnel de mise en oeuvre du règlement est de l'ordre de 7 EUR par tonne de produits importés (toutes origines) ou de 8 EUR / tonne si on ne considère que les produits de la pêche maritime. En prenant l'hypothèse que les coûts de mise en oeuvre du règlement supportés par l'autorité compétente du pays tiers seront répercutés sur le secteur privé, qui le répercutera à son tour sur les consommateurs finaux, les coûts additionnels pourraient représenter une augmentation globale de 0,26% du prix moyen des produits de la pêche exportés vers la CE. Comme pour les bénéfices à court terme estimés par le modèle, le scénario 2 est également susceptible de générer des bénéfices à long terme obtenus par l'amélioration de l'état des stocks naturels en réponse à la réduction de la pêche illégale. Par ailleurs, les pays tiers pourront engranger davantage de recettes fiscales en conséquence de la mesure.

23. Le non-respect du règlement INN pourrait résulter dans la perte de l'accès au marché européen des produits de la pêche avec des impacts très négatifs. Si telle devait être la situation pour les 8 pays tiers, le commerce avec la CE diminuerait de 846 352 tonnes/an à 98 229 tonnes/an (le commerce des produits de l'aquaculture ne serait pas affecté). Les échanges commerciaux seraient redirigés vers d'autres marchés mois rémunérateurs avec une diminution de la valeur-ajoutée de l'ordre de 228,9 million EUR / an, ce qui représente une diminution de 2,7% de la valeurs des exportations de ces

pays tiers et de 6,7% de la valeur-ajoutée. Cette situation aura des impacts négatifs sensibles sur les revenus et sur l'emploi dans le secteur de la pêche, et des répercussions sur la situation macro-économique du pays (les exportations de produits de la pêche apportent souvent une contribution positive à la balance des paiements). En réalité, les impacts pourraient être encore plus défavorables qu'estimé car le modèle ne prend pas en compte de probables diminutions de prix sur les marches non-CE qui serait susceptibles de recevoir les produits non certifiés.

24. Pour des pays qui ne dépendent que modérément du marché de la CE, comme l'Indonésie, le non-respect aurait des impacts modestes (baisse de 0,6% des revenues à l'export, baisse de 1,6% de la valeur ajoutée) du fait de la possibilité de trouver des marchés alternatifs mais moins rémunérateurs (hypothèse de 90% des prix du marché CE). De la même façon, quand les exportations d'un pays comprennent une forte proportion de produits de l'aquaculture dans ses échanges avec la CE (comme la Thaïlande), l'impact du scénario 3 est également limité (chute des revenus à l'export de 1,3% et de 3,3% de la valeur ajoutée). A l'opposé, les pays tiers qui sont dépendants d'un accès au marché européen avec de fortes proportions de produits de la pêche dans les échanges sont beaucoup plus exposés aux impacts d'une situation de non-respect. La Namibie, le Sénégal ou Maurice qui sont dans cette situation souffrirait d'une perte critique de 8 à 9% de la valeur des exportations et la diminution de près d'un cinquième de la valeur-ajoutée. Pour ces pays, le respect des termes du Reg (CE) 1005/2008 peut être considéré comme un impératif stratégique.

25. Les impacts à long terme du règlement incluront une meilleure durabilité de l'exploitation, de meilleures déclarations des captures, des avis scientifiques améliorés, un système de gestion et de conservation plus efficace, un meilleur état des stocks, et des rendements en hausse pour les pêcheurs respectueux de la réglementation. Ces impacts n'ont pu être intégrés dans l'analyse quantitative coût bénéfice car ils ne sont pas liés exclusivement à la pêche illégale et ne peuvent être appréciés en termes monétaires.

26. Les principaux risques associés à ce règlement sont supposés être que i) le règlement augmentera les barrières à l'accès au marché pour les produits de la pêche artisanale des pays les moins avancés, s'ajoutant aux difficultés reconnues de ce secteur pour se conformer aux exigences sanitaires, et ii) un marché parallèle de faux certificats de capture pourra se développer, permettant aux opérateurs d'écouler des produits d'origine illégale en tant que produits pêchés en respect des normes de gestion applicables.

27. Une étude antérieure conduite par les consultants[5] avait propose une identification de différents groupes de pays tiers sur la base de plusieurs critères estimés pertinents pour la mise en oeuvre du système de certification des captures prévu sous le Reg (CE) 1005/2008. L'évaluation des besoins pour les pays tiers sujets à étude de cas montre qu'il est nécessaire de reconsidérer cette classification. Pour une classification utile pour déterminer la nature et le type d'assistance à fournir aux pays tiers, il est nécessaire de prendre en compte les problèmes spécifiques ainsi que les capacités des autorités du pays. Comme il a été possible de l'évaluer, certains pays tiers disposent d'un système de SCS bien développé, et seront en position de se conformer aux règles de certification des captures facilement et rapidement (Maurice, Equateur et Namibie). D'autres pays tiers ne sont pas dans ce cas et rencontreront des difficultés (Sénégal, Mauritanie). Deux autres facteurs externes doivent également être considérés : l'importance de la décentralisation des fonctions de contrôle des pêches et le degré de

[5] Convention Spécifique n°12 : Analyse des conséquences de la proposition de règlement INN sur les pays tiers en développement et identification des mesures requises pour sa mise en œuvre, Phase 1 : Identification et classification des pays tiers les plus impactés, Rapport final, mai 2008

dépendance de la filière export vis-à-vis du secteur artisanal. Cette approche conduira à une estimation plus fine des besoins dans la mesure où elle se fera au cas par cas.

Cette étude formule un certain nombre de recommandations pour la mise en oeuvre du règlement.

1. Dans le court terme, il est recommandé que les pays tiers puisse être informés en détail des demandes spécifiques du règlement en matière administrative et technique pour la validation des certificats de capture, comprenant le cadre légal, les besoins en contrôle des débarquements, les procédures pour déterminer l'origine et des procédures de vérification croisées pour aider à identifier la présence et les sources de matières premières non-conformes. Une attention particulière devra être portée sur le besoin d'intégrer les informations sur l'origine obtenues au cours des procédures de certification sanitaire, de certification de l'origine et de certification de la légalité des opérations de capture. Cette activité concernera non seulement l'administration des pêches, mais aussi les autorités en charge du commerce extérieur, des contrôles douaniers, et du contrôle sanitaire. Le secteur privé devrait aussi bénéficier de cette information car ils devront être sensibilisés à des besoins potentiels en investissements (par exemple pour être conformes aux exigences en matière de traçabilité).

2. Afin de soutenir les pays tiers vers un mise en oeuvre dans les délais des mesures, il est recommandé que la Commission envisage une enveloppe pour un soutien à court terme des pays tiers afin de les aider à identifier les besoins individuels et les aider mettre en oeuvre un programme approuvé d'actions. Ceci pourrait concerner par exemple le développement de procédures internes, la préparation d'une réglementation spécifique pour la certification et la définition de conditions de traçabilité pour la pêche artisanale, ou des procédures spécifiques aux produits exportés frais.

3. Dans les pays les moins avancés ne disposant que de faibles capacités de contrôle des pêches, il est recommandé que la Commission envisage de soutenir le renforcement de cette fonction quand il est avéré qu'elle peut être un obstacle à la mise en œuvre des mesures. Cette considération pourrait inclure le lancement de programmes spécifiques d'intervention nationaux ou régionaux. Des programmes régionaux existants offrent des cadres pour programmer des interventions comme le programme ACP FISH II "Renforcer l'aménagement des pêches dans les pays ACP" ou par le biais d'autre initiatives régionales comme le plan d'action régional de 10 pays contre la pêche INN coordonné par la Commission des Pêches Asie-Pacifique (APFIC). L'approche peut s'inspirer de celle du projet financé par le FED « amélioration de l'état sanitaire des produits de la pêche dans les pays ACP » qui a aidé les Etats ACP à répondre aux contrôles sanitaires effectués par la CE. Le renforcement des capacités de SCS peut également être mis en œuvre par le biais du partenariat sectoriel pêche prévu sous les accords bilatéraux.

4. L'une des difficultés qui se posera à certains pays tiers sera la mise en oeuvre du système de certification des captures au secteur des pêches artisanales. Quelques pays tiers qui dépendent des approvisionnements de ce secteur et qui ont des systèmes de gestion des pêches décentralisés pourraient avoir besoin de soutien additionnel pour renforcer les aspects communication, contrôle et formation nécessaires pour introduire le système de certification à ce secteur des pêches. Il est recommandé que ces facteurs soient pris en compte pour la définition des priorités et des ressources pour une assistance.

5. Par ailleurs, des pays tiers dans cette situation pourraient envisager d'adopter une approche selon laquelle les produits provenant d'une pêcherie artisanale qui correspond à des critères bien définis puissent faire l'objet d'une certification générique. Cette approche ne pourrait être adoptée que quand il est estimé que le risque d'entrée de produits de la pêche illégaux dans la filière export vers la CE est faible. Une approche comparable basée sur l'estimation du risque pourrait être adoptée pour certifier les captures de groupes qui sont considérés présenter un risque INN faible. Les étapes d'un tel procédé pourraient être :

- identifier les filières qui lient le secteur artisanal au marché export
- définir les différents participants de cette filière (navires, intermédiaires, transformateurs exportateurs)
- autoriser un plus faible niveau de traçabilité applicable à cette chaîne (par exemple identifier les site de débarquement ou les coopératives plutôt que les navires individuellement)
- entreprendre des vérifications périodiques pour s'assurer de la légalité des captures et de l'intégrité de la chaîne d'approvisionnement
- valider les certificats de captures provenant de filières approuvées

6. Pour soutenir davantage la mise en oeuvre du règlement par les pays tiers, il est recommandé à la Commission de proposer des outils génériques qui permettent d'établir un cadre pour la certification des captures. Ces outils pourraient comprendre :
   - des modèles de réglementation pour les systèmes de certification, pour les besoins en traçabilité, etc
   - des modèles de systèmes de traçabilité pour les entreprises de la filière
   - des formulaires d'inspection type pour la traçabilité et l'intégrité de la chaîne d'approvisionnement
   - des méthodologies standard pour l'évaluation du risque INN
   - des méthodologies standard pour évaluer le risque de rupture de l'intégrité de la chaîne d'approvisionnement (e.g. méthodes empiriques d'enquêtes pour estimer la proportion de produits d'origines non-certifiées)
7. Afin de diminuer le risque de validation frauduleuse des certificats de capture par des officiels corrompus, il est recommandé que la Commission adopte des mesures spécifiques qui pourraient inclure une approche prudente (information, soutien à la transparence dans le secteur des pêches, incitatifs à la transparence) et une approche plus coercitive (vérifications croisées, échantillonnage et comptabilité matière de lots, mise à l'index publique des personnes poursuivies). Une source d'inspiration à retenir, qui discute des aspects relatifs à la transparence dans un système de certification des pêches, a été publiée par le projet FED « Amélioration de l'état sanitaire des produits de la pêche dans les pays ACP »[6]. Il est recommandé que ce manuel soit inclus dans les activités de dissémination qu'entreprendra la Commission dans les phases de mise en oeuvre de la mesure.

8. Quelques pays tiers exportent des quantités importantes de produits frais sur de longues distances par air (comme l'Equateur ou le Sénégal) ou sur de courtes distances par camion (Maroc). Parfois, les délais entre le débarquement et l'expédition des produits sont très courts (une question d'heures). Il est recommandé que la Commission adapte ce cas de figure au délai réglementaire de notification de 3 jours qui est prévu dans le règlement.

[6] Guide On Designing And Implementing Measures To Promote Organisational Integrity And Address Corruption, Strengthening Fishery Products Health Conditions in ACP/OCT Countries, 2008, http://www.sfp-acp.eu/SFP_PDF/GuidesManualsCatalogues/HandbooksManuals/Anti-Coruption Guide English.pdf

1 INTRODUCTION

This report provides the findings of an evaluation of the expected impacts of a regulation introduced in 2008 by the European Community, to restrict the entry of products to the EC market which are derived from illegal, unreported and unregulated (IUU) fishing. The regulation introduces a new system of catch certification for consignments exported to the EC. The study is intended to help third countries and the European Commission to respond to the need for the new administrative and control systems which will be required.

The study was commissioned by the Directorate General of Fisheries and Maritime Affairs of the European Commission under a framework contract "for performing evaluations, impact analyses and monitoring services in the context of fisheries partnership agreements concluded between the Community and non-member coastal states and more generally of the external strand of the common fisheries policy (FISH 200620)", operated by a consortium comprising Oceanic Développement (France) and Megapesca Lda (Portugal). The study was undertaken under the Specific Convention No. 15 "Analysis of the expected consequence for developing countries of the IUU fishing proposed regulation and identification of the measures needed to implement the regulation".

The objective of the study was to assess the consequences of the regulation, in particular the certification scheme, in different developing countries. It aims to identify the difficulties which those states would face in implementing it and what would be the expected benefits of the system. On this basis, the study was intended to provide information as to the measures/arrangements that the selected developing states would have to put in place in order to implement the certification scheme.

The analysis provided by the study on the expected consequences of the certification scheme is intended to help define which accompanying measures could be carried out by the Commission towards developing countries in order for them to comply with the regulation (in line with the commitments as laid down in the Regulation).

Specific results are expected to be:

- Assess the consequences linked to the establishment of the certification procedure for operators (fishers, including artisanal, traders and processors) involved in the trade of fisheries products with the EU, as well as for national administrations, notably those in charge of customs, fisheries control and sanitary inspections.
- identify and describe the types of practical arrangements (technical and administrative) which would have to be put in place to ensure a proper functioning of the certification scheme, as well as an estimation of their costs for each category of countries.
- analysed the medium to long term expected consequences for developing countries, notably in terms of potential reduction of IUU fishing activities in their waters and all associated impacts, including on tax revenues, food availability, artisanal income generation.
- Assess the risks that a country may choose to halt exporting towards the EU given its reluctance to abide by the scheme, or that a country is not anymore in a position to re-export because its supplier-country is not able to implement the regulation must also be covered by the study.

A preliminary desk study was conducted in 2008, which identified different groups of third countries exporting fishery products to the EC, on the basis of their fishery and trade characteristics, and their fisheries management and conservation capacities. The present study was also required to assess the validity of this classification and propose possible modifications, taking into account the potential impact of catch certification in different countries.

2 BACKGROUND

2.1 Community policy and legislation in relation to IUU fishing

The "International Plan of Action against Illegal, Unregulated and Unreported Fisheries", adopted in February 2001, is formulated in the context of the "Code of Conduct for Responsible Fisheries" adopted by the FAO in Rome in 1995. This code enumerates the principles governing the conservation, adaptation and development of all fishing grounds.

This Plan concerns all fisheries and all forms of illegal activities. It invites States to proceed with implementation as soon as possible; either directly, in co-operation with other States, or indirectly, through relevant regional fisheries management bodies. The majority of measures foreseen are related to four major strategies:

- Flag State Control: each State is asked to monitor compliance by natural or legal persons and vessels under its jurisdiction with national, regional and international rules;
- Coastal State Control: all States are responsible for monitoring fishing activities conducted in their waters;
- Port State Control: the port, through which the illegal goods necessarily transit, is a key to combating illegal, unregulated and unreported fisheries. COFI asks port States to take appropriate measures (monitoring of arrivals and departures, inspections of gear, catches, crews or any other element deemed necessary);
- Market Control: States have an obligation to monitor goods imported or traded on their territory.

To strengthen this new international instrument, COFI also calls on all States to formulate and implement national action plans, in a spirit of transparency and co-operation. In response to this the Commission proposed in 2002 a “Community action plan for the eradication of illegal, unreported and unregulated fishing”[7]. This recognised that absence of a proper tool to monitor the legality of fisheries products imported into the EU was one of the main shortcomings of the current approach.

As a consequence, the Commission proposed the introduction of a new regime governing the access to the Community territory of third country fishing vessels and imported and exported fisheries products. This regime is based on the principle that only those fisheries products certified as legal by the Flag State concerned are entitled to be exported to the Community. The approach aims at addressing the loopholes in the current Community legal order which contributes to encourage the continuation of IUU fishing activities.

The Commission adopted a proposal for a Council Regulation on 17 October 2007, (COM(2007)602). This text was adopted by the Council and the European Parliament in the form of Regulation 1005/2008 of 28th September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing.

2.2 Features of Regulation 1005/2008

Among other specific measures, the Regulation prohibits the importation and exportation of fishery products from illegal, unregulated and unreported fishing. Note that some species/sources are excluded from the definition of fishery products (including products of freshwater fisheries and aquaculture, certain bivalve and gastropod molluscs, however prepared, and prepared and preserved molluscs[8]). It defines a certification system to ensure that products from IUU fishing cannot be traded, and procedures for the identification and listing

[7] Communication from the Commission (COM(2002)180 final) Brussels 28.5.200

[8] The interpretation of this term is not clarified; it could likely to refer to HS 160590 “Prepared or Preserved Molluscs, Other Aquatic Invertebrates”; thus the regulation is considered to apply to frozen squid and cuttlefish, but not canned or preserved in hermetically sealed containers.

of IUU fishing vessels and non-cooperating third countries, and associated measures to limit their integration within the EU economy. The Regulation is non-discriminatory, in that it applies equally to EC and third country fishing operations, and to both imports and exports of fishery products by European operators.

2.2.1 Definitions

The definitions of Illegal fishing, Unregulated fishing and Unreported fishing are specified:

"**illegal fishing**" means fishing activities:

(a) conducted by national or foreign fishing vessels in maritime waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations;

(b) conducted by fishing vessels flying the flag of States that are contracting parties to a relevant regional fisheries management organisation, but which operate in contravention of the conservation and management measures adopted by that organisation and by which those States are bound, or of relevant provisions of the applicable international law; or

(c) conducted by fishing vessels in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organisation;

"**unreported fishing**" means fishing activities:

(a) which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or

(b) which have been undertaken in the area of competence of a relevant regional fisheries management organisation and have not been reported, or have been misreported, in contravention of the reporting procedures of that organisation;

"**unregulated fishing**" means fishing activities:

(a) conducted in the area of application of a relevant regional fisheries management organisation by fishing vessels without nationality, by fishing vessels flying the flag of a State not party to that organisation or by any other fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organisation; or

(b) conducted in areas or for fish stocks in relation to which there are no applicable conservation or management measures by fishing vessels in a manner that is not consistent with State responsibilities for the conservation of living marine resources under international law;

2.2.2 Catch certification requirement

From 1 January, 2010, only fish which is accompanied by a catch certificate “validated” in conformity with the regulation shall be permitted to be traded to and from the EC. A pro-forma certificate is shown in Annex 1 of the Regulation. Validation must be by a public authority the flag state and will certify that the catches have been made in accordance with applicable laws and international conservation and management measures. Subject to specific arrangements between the third country and the EC through the administrative cooperation foreseen under Art. 20, electronic certification or implementation of electronic traceability systems may be used to establish, validate or submit the catch certificate.

Catch documents validated in conformity with catch documentation schemes by RFMOs may be accepted as complying with the IUU requirements.

If the product is consigned via another third country (termed indirect supply), two scenarios are defined – fish which is transported, and fish which is processed.

It is important to note that Regulation expresses the important principle of non-discrimination, in that it applies to all catches catches imported from third countries for sale or further processing on the Community market, irrespective of the flag of the catching vessel and export of EC catches to a third country.

It is also important to note that the regulation does not interfere with a flag or port state organisation of inspections. The nature and extent of these inspections, as determined by the laws in place, are not affected by the regulation. The regulation does require that third countries implement the laws which they have in place.

Consignments subject to transport (transhipment, transit or temporary warehousing)

Here the conditions are that:

i) the consignment is accompanied by a certificate validated by the flag state
ii) there is documentary evidence that the consignment remained under the surveillance of the Competent Authority, and did not undergo processing. This evidence should be in the form of either a) a single transport document b) certificate from the competent authorities of the state of export which describes products and indicates dates of unloading/loading and identifies the vessels/transport means used

Consignments subject to Processing

Here the conditions are that:

i) the consignment is accompanied by the catch certificate validated by the flag state (or a copy in cases where only a partial catch has been used in the consignment)
ii) the consignment is accompanied by a statement from the processor and endorsed by the Competent Authority (in accordance with a specific form in Annex IV of the regulation) which i) describes and quantifies the unprocessed and processed products ii) states that the consignment has been processed from catches referred to on the certificate.

In both above cases (either transport or processing in country other than flag state) an alternative condition is that the consignment be accompanied by a re-export certificate validated under a catch documentation scheme of an RFMO, provided that the state of export has fulfilled notification requirements for validation of re-export certificates. In order for the RFMO scheme to apply, it must be recognised as meeting the requirements of Regulation 1005/2008. It should be noted that this can only apply to the relevant species (e.g. a few tunas or toothfish).

2.2.3 Administrative cooperation

The Regulation will apply from 1 January 2010. The acceptance of catch certificates from a flag state is conditional on the Commission receiving prior notification under Article 20 concerning:

- administrative arrangements for the implementation, control and enforcement of laws regulations regarding fishing vessels
- identification of public authorities properly empowered to attest to the veracity of the certificates, with capacity to carry out verifications on request

Specific information to be provided is set out in Annex III of the regulation, and includes notification of names, addresses, official seals and signatories of public authorities empowered with regard to fishing vessel registration, issue and withdrawal of fishing licences, fisheries control and enforcement, attestation and verification on request, and provision of samples of catch certificates. Flag state notification in respect of RFMO catch certification schemes may be accepted if the relevant scheme is recognised as meeting the requirements of Regulation 1005/2008. This will be specified in the implementation rules and guidelines under preparation by the Commission.

The regulation foresees administrative cooperation between the Commission and the third country authority, and that this could include electronic means. The aim of the cooperation will be to:

- Ensure fishery products originate from catches made in accordance with applicable laws and conservation and management measures
- Provide for exchange of information under mutual assistance

The regulation is explicit, that these provisions are not to be construed as pre-conditions to trade or implementation of the Regulation. In other words, a country which has not been able to establish “administrative cooperation” will still be able to enter into trade with the EC in fishery products subject to compliance with the Regulation.

The Commission will keep and publish a record of Competent Authorities in MS and third countries, and indicate those with which administrative cooperation has been established.

2.2.4 Verification checks on importation of consignments

The regulation requires that validated catch certificates should be submitted to the import control competent authorities of the Member States at least 3 working days before arrival of the consignment. The MS CAs shall undertake checks, based on information received by the Commission from the flag state. Approved economic operators are required only to advise the CA of the MS, and keep the certificates for any subsequent checks. Certificates have to be kept on file (by the MS, or the AEO, whichever applies) for a period of 3 years.

Verification by MS consists of examination of the products, verifying declaration data and existence and authenticity of documents, examining the accounts and other records of operators, and inspecting means of transport, including containers and places of storage.

Verification should be conducted both at random, and where:

- there are grounds to question the authenticity of the documentation or signatures/seal, there is doubt regarding the compliance of the fishing vessel concerned,
- the vessel or the enterprise have been associated with IUU fishing
- the flag state has been reported to an RFMO under a trade measure
- an alert notice has been published by the Commission

The MS is required to apply principles of risk assessment to the controls undertaken at national level. This means that the main focus will be on specific trade channels which are implicated in IUU. The MS is obliged to communicate the criteria to the Commission.

These will most likely be defined by:

- Country of export
- Species
- Flag of originating vessels
- Fleet segment of originating vessels

The MS may request the assistance of the CA of the flag state or other country (transhipment or processing) in completing the verification. The request shall state the reasons for doubting the validity of the certificate and include a copy of the relevant documents. The response to the request must be submitted within 15 days, with a possibility for a discretionary extension by 15 days. During this period the release to market of the consignment is suspended, with storage at the cost of the importer.

Where the certification conditions are not met, or where requests for validation have met with no response the consignment shall not be released to the EC market. The MS may confiscate and destroy or otherwise dispose of the consignment. There is a duty of notification and a right of appeal in cases of rejection.

2.2.5 Community Alert System

A Community alert system will be created to improve the efficiency of verification where there are “well founded doubts” as to compliance with applicable laws or regulations. Where alerts are published:

- All past, current and future consignments shall be subject to verifications on import
- Fishing vessels shall be subject to relevant investigations or inspections at sea and in port

Where these processes reveal that there was a non-compliance, the Commission is obliged to notify the flag state, coastal state, market state and any RFMO whose rules may have been violated, and to implement further proceedings. These may ultimately include (subject to the appropriate notices and appeals) requesting the flag state to investigate the alleged IUU fishing or take enforcement action against the vessel, and to notify the Commission of the outcome.

2.2.6 Support for third countries

It should also be noted that a number of measures are contained within the Regulation which provide assistance to the third country flag state in the implementation of the Regulation, and in the fight against IUU fishing in general. Article 11(4) provides for EC Member States to cooperate with third countries in the provision of information regarding suspected IUU catches made on the high seas and landed in the Community. Article 23(2) requires that alert notices published by the Commission in relation suspected non-compliance with applicable laws of regulations or RFMO management measures should be communicated directly to the flag state. Article 20 (4) and (5) requires the Commission to cooperate administratively with third country flag state competent authorities in relation to catch certification, with the aim of ensuring compliance with applicable laws and conservation measures, facilitating the validation of catch certificates, auditing the implementation of the regulation, and exchanging information. Article 48(4) requires that sighting reports of vessels engaged in potential IUU fishing activities should be communicated to the flag state (and any relevant RFMO). Information regarding sighting of IUU activities may also be submitted by civil society (Article 49), including representatives of fisheries and fish trade stakeholders. This will include third country interests. Where the sighting is of a vessel carrying the flag of an EC Member State, there is a requirement for an investigation to be undertaken.

Taken together these provisions provide the legal and administrative means for integrating the third country activities against IUU fishing, within a wider international framework of cooperation and information exchange.

3 STUDY METHODOLOGY

3.1 Previous study

In a previous study[9], the consultants presented an identification of different groups of countries, on the basis of several criteria considered relevant to the implementation of the catch certification system under Regulation 1005/2008. The intention is that this approach should inform the selection of EC support measures to be implemented in that country.

The main criteria were as follows:

- the characteristics of their fishing industry which is trade-oriented, and notably the importance of processed fisheries products exported compared to non-processed fisheries products;
- the degree of dependence on the Community market for fisheries products traded from those countries;

[9] Convention Spécifique n°12 : Analyse des conséquences de la proposition de réglement INN sur les pays tiers en développement et identification des mesures requises pour sa mise en œuvre, Phase 1 : Identification et classification des pays tiers les plus impactés, Projet de Rapport final, 15 mai 2008

- the origin of fisheries products traded with the EU, depending notably on the fleet concerned (artisanal or industrial, national or foreign-flagged) and the location of the fishing grounds (EEZ from the country concerned, from another country or international waters);
- the commitments by, and means of the countries concerned to implement conservation and management measures (reflected notably in their membership to RFMOs and the track records of their vessels and administrations in terms of compliance and enforcement).

The resulting classification of countries and its relevance for the present study is considered in Section 7.4, along with a revised classification.

3.2 General approach

The consultants followed the general case study approach set out in the terms of reference shown in Annex 1. Missions were undertaken to a sample of eight third countries identified by the Commission for a detailed assessment of the capacity of the relevant institutions to implement a catch certification scheme in the context of the fishery sector activities undertaken. In particular this considered the different types of certification activities defined in the Regulation (which may be considered respectively as fisheries control and certification of indirect trade (Article 14 and Annex 14 certification). The potential for each of three certification activities was considered in each country visited:

In addition, considering that catch certification of exported consignments is dependent on establishing a link between the consignment and the catching vessel, it was also necessary in each country to consider the traceability conditions, and how these might be developed to a level to ensure the effective implementation of the regulation.

The findings from the missions were consolidated using an inductive approach, and the key issues identified, with recommendations developed for the implementation of the regulation in less developed third countries, and for the design and delivery of associated support measures.

3.3 Review of existing certification systems

The first stage was a review of the different certification systems to which fishery products may be subjected when entering international trade.

States which engage in international trade in fishery products already employ a number of certification systems as a means of ensuring that the trade complies with the requirements of customers or meets international obligations assumed by the state. These are typically in relation to certification of origin so as to obtain tariff preferences and compliance with conservation, sanitary or environmental conditions. Therefore the review considered the different objectives of each of these certification systems and the associated elements of each (for example, traceability, certification of export consignments).

Whilst these cannot be attributed to the IUU regulation, since their existence is due to other purposes, these generic systems were reviewed, with a view to a more detailed assessment being made in each of the case studies in each third country studied. There are potential elements of these existing certification systems which can be applied to the requirements for catch certification under Regulation 1005/2008, which could give rise to potential for an integrated approach in some countries.

3.4 Case studies on catch certification in third countries

Following from the previous study, eight countries which represent different stages of development and fisheries conditions were selected by the Commission as candidates for detailed study of the feasibility and impacts of the implementation of the catch certification system required under regulation 1005/2008. These were Namibia, Indonesia, Thailand, Morocco, Ecuador, Senegal. Mauritania and Mauritius. The duration of each field mission was approximately one week.

The field mission aimed to meet with key governmental, industry and NGO stakeholders in the third country with a view to gathering data to:

- Describe the national arrangements in place *i)* to regulate and monitor the fishing fleet flying its own flag, *ii)* monitor landings by foreign flagged vessels and *iii)* to ensure traceability of nationally landed and imported fisheries products.
- Describe existing certification systems for origin, sanitary conditions, RFMO catch certification and CITES
- Define possible support measures, which the Community could undertake, to increase the potential for successful implementation of the regulation in the third country, and to ameliorate any potential negative impacts.
- Support the analysis and quantification of the positive and negative impacts of the newly adopted IUU fishing regulation, with particular reference to the certification scheme defined in Chapter III of the Regulation and its further provisions to provide cooperation and exchange of information with third countries in Chapters II, IV, VI and XI

During the missions, the Consultants' met with key stakeholders with the intention of gathering data in relation to existing Certification systems, traceability conditions, legislation for fisheries controls, fisheries MCS system, fleet structure and outputs, extent and nature of IUU fishing and general fisheries economic data. In addition, these meetings were used to explore in more detail the foreseeable potential impacts of the IUU fishing regulation, in terms of legal, economic, political, human resource, social and developmental impacts, as well as to investigate the options available to the third country for the development of procedures to implement the catch certification scheme in Chapter III of the Regulation and the related provisions on cooperation.

In each country visited, the EC delegation and the fisheries administration were instrumental in establishing the programme of meetings. A short briefing note was sent in advance (Annex 2) to assist in establishing the programme. Therefore in each county, the consultants sought to consult representatives from the following stakeholders:

- Competent Authority for fisheries management
- Competent Authorities for fisheries monitoring control and surveillance (e.g. Fisheries, Navy and/or Coastguard)
- Competent Authority for the operation of the fishing fleet register
- Customs Authorities
- Competent Authority for the certification of origin for fishery products
- Competent Authority for certification of sanitary conditions for fishery products
- Competent Authorities responsible for certification of fishery products for conservation or environmental purposes(e.g. CITES[10], RFMOs[11])
- Industry associations (ship owners, fishermen's unions, processing industry, small scale fisheries)
- Representatives/agents of fishing vessels from other third countries which are authorised to fish in the waters of the mission country
- Fisheries research (with emphasis on fisheries economics and IUU fishing)

Lists of persons met are included in the relevant detailed case study reports in Annexes 4 to 11.

3.5 Evaluation of implementation capacity for catch certification

In terms of compliance with the requirements for catch certification to be implemented there is a *prima facie* need for three types of activity to be undertaken by the relevant competent authority in a third country trading fishery products with the EC.

[10] Convention on the International Trade in Endangered Species
[11] Regional Fisheries Management Organisations

Figure 1 shows four possible situations for certification of a given consignment in a third country, depending on the origin (flag of catching vessel) and place of landing. These situations relate to the 3 main activities identified in relation to catch certification.

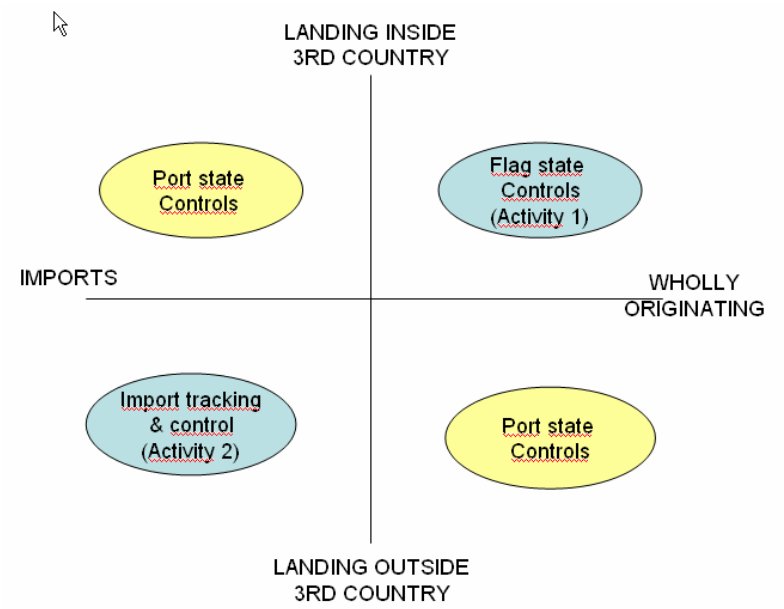

Figure 1: Possible catch certification activities required for compliance with Regulation 1005/2008

This gives rise to the identification of two main kinds of activities linked to the catch certification:

Activity 1: Validation of catch certificates from a third countries' vessels landing in the flag country, and in other third countries (flag state controls).

Activity 2: Provision of statements in relation to trade and re-export of unprocessed and processed fishery products (indirect importation to the EC, Article 14 and Annex 4 statements)

In addition a third country may be requested to provide information by another flag state third country (or an EC Member State) in respect of landings by vessel(s). Such port state controls are not specifically mandated by Regulation 1005/2008, but are foreseeable in some circumstances.

The assessment of implementation capacity focused on identifying what is required to undertake these three activities in the case study countries, taking into account:

- the nature and dimensions of the fleet activity and trade with the EC,
- the capacity of each third country's competent authorities to undertake the activities, drawing where feasible on elements of existing control systems

3.6 Cost benefit analysis

In addition to drawing lessons from the case studies, the consultants undertook a quantitative analysis of the costs and benefits of the catch certification system in each country.

The approach adopted compares the economic impacts of international trade on fishery products for a third country under three scenarios.

The first scenario is the "*pre-regulation*" scenario, in which the country sustains ongoing costs due to IUU fishing, but does not sustain any costs associated with the implementation of a catch certification system. This is clearly not tenable, since the Regulation has been passed and will come into force from 1 January 2010, but is included to allow comparison of the pre-regulation situation. The second scenario is a "*compliance with regulation*" scenario which considers an effectively implemented regulation which results in a reduced level of IUU fishing. The third

scenario is a "*non-compliance with regulation*" scenario in which the third country is assumed not to comply with the Regulation 1005/2008.

The detailed methodology, including the treatment of different cost and benefit elements is described in Section 8.

4 EXISTING CERTIFICATIONS SYSTEMS FOR TRADE IN FISHERY PRODUCTS

4.1 Introduction

Trade in fishery products between the EC and third countries is regulated by a number of inspection and certification systems aimed at ensuring compliance with several measures applied by the parties, either as a bilateral trade measure, a sanitary measure or resulting from obligations taken on by their participation in an international agreement. These measures are briefly reviewed in this section, with more detailed explanation provided in Annex 3. It is important to note that each of these schemes is an independent certification scheme. There is no overlap between them, although there may be, in some cases, opportunities for an integrated approach for the sake of administrative efficiency. A similar approach may therefore be considered in relation to the catch certifications under the Regulation 1005/2008

Note that this section only covers mandatory measures. Trade in fishery products may also be impacted by voluntary certification. Examples are in relation to food safety (eg.ISO22000 Food safety standard), Marine Stewardship Council (stock sustainability standard) and Earth Island Institute (dolphin friendly certification). The impact of these schemes, where they are applied, on the catch certification under the new regulation, is considered in section 6.

4.2 Certification of Sanitary Conditions

4.2.1 Legal basis for requirements

Since 1991 the EC has required third countries to implement a series of sanitary controls regarding fishery products which are consigned to the EC market. The hygiene conditions are presently set out in Community legislation, and in particular technical conditions expressed in the 2004 "hygiene package" comprising the following legal instruments:

REGULATION (EC)No 882/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules.
REGULATION (EC)No 852/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 on the hygiene of foodstuffs
REGULATION (EC)No 853/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 laying down specific hygiene rules for food of animal origin
REGULATION (EC) No 854/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 laying down specific rules for the organisation of official controls on products of animal origin intended for human consumption.

Only those third countries which can provide the relevant guarantees are subject to a specific decision of the Commission, which thus allows access to the EC market for products from that country. For each country the specific decision of the Commission sets the import conditions, including the form and procedures for certification. When a Specific Decision is made by the Commission, this is published in the Official Journal of the European Communities.

The Specific Decision is periodically updated, for example when there is a change in the name of the Competent Authority, or the list of establishments is updated. Within each country, specific export establishments are listed by the nominated Competent Authority of the third

country. This list, which can be varied according to the findings of the Competent Authorities, is circulated by the Commission to EC Border Inspection Posts, such that only products consigned from approved establishments in listed third countries are approved for entry.

The countries which are considered to have implemented controls at least equivalent to the regulations, are allowed to trade with the EC, are listed under Decision 2006/766/EC of 6 November 2006 “as regards the list of third countries and territories from which imports of fishery products in any form for human consumption are permitted”, as amended by Commission Decision 2008/156/EC of 18 February 2008.

Therefore, in this case, the objective of certification is to ensure that the fishery products consigned to the EC market are produced under conditions of sanitary control which are considered to be at least equivalent to those applicable to EC operators.

4.2.2 Response of third countries

A key implication of the EU requirements is the lawful nomination of a unitary Competent Authority responsible for the implementation of fish health controls for trade in fishery products. The internal organisation of the Competent Authority reflects the nature, technical level and geographical location of the tasks to be accomplished. Technical staff of the Competent Authority must have adequate educational level and technical training to ensure that they can carry out their tasks with an adequate level of technical competence. A legal basis is required for controls, at least equivalent to the EC regulations. Many third countries therefore have had to prepare specific legislation to define powers and responsibilities of the CA, to define the approval system, and the criteria for approval. Additional requirements for official controls (such as monitoring of food safety conditions, sampling and testing in laboratories, and additional controls required for aquaculture and bivalve molluscs) have also had to be addressed.

Regular inspections and reports (subsequently published) by the Food and Veterinary Office of DG Health and Consumer Protection of the European Commission verify the food safety conditions and compliance on the spot. Where conditions are found not to be compliant, depending on the severity and the level of risk to consumer health the Commission may require guarantees that an agreed programme of corrective actions is implemented, that safeguard measures are applied (restricting imports to conditions which will guarantee safety, for example by sampling and testing), or in cases where these measures will not deliver the required level of consumer protection, a ban on imports from a particular third country.

4.3 CITES Certification

4.3.1 Legal basis for requirements

CITES is the Convention on International Trade in Endangered Species of Wild Fauna and Flora. This is an international agreement between governments which aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival. CITES was drafted as a result of a resolution adopted in 1963 at a meeting of members of IUCN (The World Conservation Union). The text of the Convention was finally agreed at a meeting of representatives of 80 countries in Washington DC, USA on 3 March 1973. The Convention entered in force on the 1 July 1975.

There are 173 members. All EC Member States are members of CITES. Although it is not yet a Party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in its own right, the European Community has been fully implementing the Convention since 1 January 1984.

CITES works by subjecting international trade in specimens of selected species to certain controls. All import, export, re-export of species covered by the Convention has to be authorized through a licensing system, as well as “introduction from the sea” which is also considered to be a form a trade. Each Party to the Convention must designate one or more Management Authorities in charge of administering that licensing system and one or more Scientific Authorities to advise them on the effects of trade on the status of the species.

In each signatory country, the Management Authority is obliged to issue a certificate in respect of all trade of species listed in one of three Appendices to the Convention, according to the degree of protection they need. About 5,000 species of animals and 28,000 species of plants are protected by CITES. They include some whole groups, such as primates, cetaceans (whales, dolphins and porpoises), sea turtles, parrots, corals, cacti and orchids. In some cases only a subspecies or geographically separate population of a species (for example the population of just one country) is listed.

The species are grouped in the Appendices according to how threatened they are by international trade. The listing of the species in the Appendices is a decision taken by the signatories of the Convention acting in the Conference of the Parties (CoP, held every 2 or 3 years). This is the supreme decision-making body of the Convention. A resolution of the CoP in 1985 established the biological and trade criteria to determine whether a species should be included in Appendices I or II.

- Appendix I includes species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances.
- Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization “incompatible with their survival”.

With regard to Appendix I species there is an effective ban on a) catching for commercial purposes on the high seas and b) commercial international trade in species caught in territorial waters. For Appendix II species, commercial exploitation is permitted (subject to the overall non-detrimental to survival condition), but the specimens must have been obtained legally.

For species listed in Appendix I or II, in the case of specimens entering trade through introduction from the sea, a certificate has to be issued by the Management Authority of the State of Introduction. This may be issued only if the specimen is not to be used for primarily commercial purposes and if the import will be for purposes that are not detrimental to the survival of the species. The Scientific Authority is responsible for issue of “non-detriment findings”.

Therefore, in this case, the objective of certification is to ensure that international trade in species whose existence is threatened is restricted and recorded.

4.3.2 Response of third countries

All signatory countries have implemented CITES by developing a legal framework, either through a specific measure related to CITES or as part of their environmental protection legislation. The legal framework defines the competent authorities (management and scientific authorities) and the procedures for certification. There is no specific requirement in the text of the Convention to establish quotas to limit the trade in CITES-listed species. However the use of export quotas has become an effective tool for the regulation of international trade in wild fauna and flora, and the Parties to CITES adopted, at the 14th meeting of the Conference of the Parties in 2007 a resolution on Management of nationally established export quotas.

Export quotas are usually established by each Party (Member State) unilaterally but they can also be set by the Conference of the Parties, and they generally relate to a calendar year (1 January to 31 December). Where export quotas are used, clearly there is a requirement to establish a system for quota management and monitoring of exported quantities. When a country sets its own national export quotas for CITES species, it should inform the Secretariat which in turn informs the Parties. These quotas are published.

The text of the Convention suggests that for the certification of introduction from the sea as well as marine species which are taken inside territorial waters, then the nominated Scientific Authority should possess the technical capacity to assess whether the introduction will be detrimental to the survival of the species. This suggests that there is at a minimum a requirement for a capacity to design and implement an analysis of population dynamics (e.g. stock assessment), to analyse the results (for example modelling the population and its

demographic features) and to translate the findings into a meaningful form for sustainable management (such as a Total Allowable Catch - TAC).

This suggests that the Parties must develop a legal framework for the exploitation of the species concerned and providing for regulation of the harvest of such species. This should account for the setting of limits to the exploitation, based on the scientific advice, and may be in the form of management of the TAC by quota, effort limits or other means (including technical measures such as gear restrictions, closed seasons, minimum sizes). This may be undertaken in different ways, for example as part of the fisheries management functions of the state, or it may be undertaken as part of the nature conservation process.

There is also a need for field level enforcement and implementation, with capacity to police and enforce the prohibition on the exploitation of Appendix I species, and to ensure that Appendix II species which are presented for trade (whether introduction from the sea and/or trade) are caught legally. In the context of fishing, this suggests the capacity to monitor and control the activities of vessels and their compliance with the management rules established.

4.4 Certification of Origin

4.4.1 Legal basis for requirements

The need for certification of origin (CoO) has arisen from the differential treatment of traded goods by importing countries, according to their sources. Differential treatments arise in terms of tariff duties, tariff quotas, anti-dumping measures or other trade measures which are applied by customs authorities to limit or control access to the markets which they represent. The procedures defined below deal mainly with requirements for CoOs in trade with the EU. However it should be mentioned that all trade agreements which provide for preferential treatment require as the base for that preference, a declaration of origin. For the sake of efficiency, many countries seek to harmonise the institutional and procedural requirements for issue of COs, although the precise form of certificate may vary slightly depending on the requirements of the export market concerned.

The International Convention on the Simplification and Harmonization of Customs Procedures (the Kyoto Convention) is an international instrument on the harmonization of Customs techniques which covers all aspects of Customs legislation. It was done at Kyoto, Japan, on 18 May 1973 and entered into force in 1974. Since then the growth in international cargo, developments in information technology and a highly competitive international business environment have created conflict with traditional Customs methods and procedures. World Customs Organization (WCO) has therefore revised and updated the Kyoto Convention to ensure that it meets the current demands of international trade. The WCO Council adopted the revised Kyoto Convention in June 1999 as the blueprint for modern and efficient Customs procedures in the 21st century. The amendment entered into force on 3 February 2006. The Convention sets out standardised approaches to customs procedures, with specific annexes covering a range of specific aspects (for example customs clearance, duties and taxes, appeals). One of the Annexes (Annex K) covers procedures for determining rules of origin.

Some of the study countries are contracting parties. These are (with dates of ratification) Morocco (16/6/2000), Namibia (03/02/2006) and Senegal (21/03/2006). These parties have only ratified the main text of the Convention and the General Annex. No specific chapters or Annexes are formally accepted by the above, and specifically they are not bound by the conditions for the rules of origin (Annex K).

In the case of the European Union, the legal basis for the certification of origin is Council Regulation (EEC) No 2913/92 of 12 October 1992 establishing the Community Customs Code. This defines two origin scenarios according to the nature of the preference. The Customs Code's Implementing Provisions (CCIPs) are contained in Commission Regulation (EEC) No 2454/93.

Therefore, in this case, the objective of certification is to ensure that tariff preferences granted in respect of international trade are applied correctly according to the origin of the goods concerned.

4.4.2 Response of third countries

Issuance of certificates of origin implies a legal basis for certification, defined criteria for establishing origin, institutional capacity to receive and process applications and emit certificates, and capacity to investigate claims regarding origin. This is usually vested in public authorities responsible for trade, finance or customs.

The procedures for issue require the issuing authority to undertake a series of checks in respect of an application received from enterprises. These relate to formal undertakings, authorised signatories and supporting documents submitted in relation to claims of preferential origin.

In respect of certificates issued, the competent authority in the exporting country may be required to undertake verification steps regarding origin where appropriate, and to check other information supplied (for example in response to a request from an importing country). This means that there should be a capacity for inspections by the Competent Authority. In addition, the investigative capacity should ideally follow the documentary evidence in a sample of non-disputed certificates to verify that the origin of goods is as declared. If the responsibility for issue of certificates is delegated (for example to a Chamber of Trade) then this organisation should also be subject to such periodic checks on a sample of certificates issued, and its self should be required to undertake verification steps in relation to a sample of the certificates issued.

4.5 Catch Certification in fulfilment of RFMO obligations

4.5.1 Legal basis for requirements

There are currently 17 Regional Fisheries Management Organizations (RFMO) that have a management mandate. This implies that management measures are binding for contracting parties and membership of an RFMO can be considered of *prima facie* evidence that the mandated measures will be applied by the coastal state. This includes specific measures that attempt to reduce IUU fishing such as the establishment of positive and negative vessel lists, port state control measures, and the application of catch or trade documents to be issued when products are landed or enter international trade.

The European Community is a contracting party to eleven of these RFMOs, including those that cover various areas of the Atlantic, the Mediterranean, and Antarctic Oceans. Tuna resources are of special interest to the European Community, considering that Member States carry out fishing activities for tuna in all of the major oceans. Thus, the EU is a member of all of the RFMOs that are mandated to manage tuna and tuna-like resources, except in the case of the Inter-American Tropical Tuna Commission (IATTC) and the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) where the EU is a cooperating non-Party. The status of cooperating Party, as opposed to full membership (contracting party), has almost no practical implications in terms of management and conservation of resources as well as capacity limitations, as the requirements are the same as for Members. The fundamental difference is that cooperation status does not provide the right to vote on measures.

Of particular relevance to the present study are the various catch/trade documentation schemes that are in place in the context of RFMOs. These are in fact very limited in number, considering the number of RFMOs and species involved. These include:

- International Commission for the Conservation of Atlantic Tunas (ICCAT): catch documentation scheme for bluefin tuna, bigeye tuna and swordfish;
- Inter-American Tropical Tuna Commission (IATTC): bigeye tuna statistical documentation programme;
- Indian Ocean Tuna Commission (IOTC): bigeye tuna statistical documentation programme;

- Conservation of Southern Bluefin Tuna (CCSBT): Southern bluefin tuna trade information scheme;
- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR): Patagonian toothfish catch documentation scheme;

The following table presents the membership of selected RFMOs. The Western and Central Pacific Fisheries Commission (WCPFC) is also included, considering its mandate to manage all highly migratory species including tuna in the Western Pacific. It was created recently in 2004 and has not yet introduced a statistical documentation scheme, but is expected to do so in some form in its efforts to reduce IUU fishing.

Catch certification has been introduced for Patagonian toothfish (CCAMLR) and is in the process of being implemented for Atlantic bluefin tuna (ICCAT). The other cases refer to statistical or trade documents (i.e. bigeye tuna, Southern bluefin, swordfish). A more detailed description of these schemes is provided in the Annex 3.

Table 1: Membership and Cooperating Status* in RFMOs relevant to the study

	RFMO					
Country	**CCAMLR**	**CCSBT**	**IATTC**	**ICCAT**	**IOTC**	**WCPFC**
European Community	yes	CS	CS	yes	yes	yes
Ecuador			yes			CS
Indonesia		yes			yes	CS
Mauritania						
Mauritius	CS				yes	
Morocco				yes		
Namibia	yes			yes		
Senegal				yes	CS	
Thailand					yes	

(CS indicates cooperating status)

Table 2 provides an overview of the various catch documentation schemes in place.

Therefore, the objective of certification is to ensure that fishery products consigned by a coastal state to international trade have been caught in accordance with that states' obligations in relation to its membership of RFMOs. A secondary objective in some cases is to ensure that such trade is properly recorded, to provide additional statistical information for fisheries management purposes.

Table 2: Overview of the scope and requirements of RFMO certification schemes

RFMO	Relevant area	Species	Type of products	Where certification is required
CCAMLR	Antarctic	Patagonian toothfish	All (by-catches – max. 5% - taken by trawling outside the Convention Area are exempted)	For all catches and movement to final market (landings, transhipments, imports, exports, re-exports)
CCSBT	Southern Ocean	Southern bluefin	All	For imports
IATTC	Eastern Pacific	Bigeye	Frozen (PS & BB catches exempted)	For imports
ICCAT	Atlantic Ocean	Atlantic bluefin	All	For all catches and movement to final market (including from farms)
		Bigeye	Frozen (PS & BB catches exempted)	For imports
		Swordfish	All	For imports
IOTC	Indian Ocean	Bigeye	Frozen (PS & BB catches exempted)	For imports

4.5.2 Response of third countries

It is under the responsibility of Members and Cooperating non-Members to ensure that action is taken under their national legislation to implement conservation and management measures, which become binding on it.

It is implied that the Members and Cooperating non-Members are to nominate authorized individuals or institutions for the purpose of validating these documents/certificates. These appear to be typically customs institutions and individuals. Information concerning authorized government officials or institutions, including a sample of signatures and seals, are to be communicated to the RFMO. This list of authorized institutions/individuals is maintained by the respective RFMOs, and is generally kept confidential.

However most RFMOs have not issued specific guidelines on the implementation of documentation/certification schemes at the national level. No requirements or guidelines are specified in relation to the nomination of government officials or institutions that are authorised to validate certificates such as requirements on functions, structure, capacity, or staffing, nor for specific procedures. Most have however published the standard forms which need to be completed, and in the case of the CCAMLR Patagonian toothfish scheme, the manipulation of certification data is largely managed online, ensuring a standardised approach between different countries implementing the measure.

5 MAIN FINDINGS: THIRD COUNTRY CASE STUDIES

5.1 Namibia

5.1.1 Fishery sector profile

Namibia's marine capture fisheries sector is exclusively industrial. The demersal fishery targets mainly hake in deep water and monkfish, sole, snoek and kingklip inshore. The mid-water

trawlers target horse mackerel, purse-seiners target pilchard, juvenile horse mackerel and anchovy (the latter species are for fishmeal). Other fisheries at the industrial level include tuna fishing by pole and line (albacore), surface longlining for tunas, swordfish and sharks, rock lobster fishing, deep-sea red crab fishing and line-fishing (snoek, kob and west steenbras). Landings were 504,382 tonnes in 2006.

A total of 228 vessels were licensed for commercial fishing in Namibian waters in November 2008, compared to 283 in 2005, 302 and 312 in 2003 and 2004 respectively. In 2008, 158 of the licensed vessels, (70%) were Namibian flagged. Of these, some 44 are registered as Factory vessels and 26 as freezer vessels, all approved for supply of fishery products to the EC market. About 70 vessels were flagged by a number of different countries, about half of these were from South Africa, the rest were from Spain, Russia and 11 other countries, including some well known flags of convenience operators such as Georgia and Sierra Leone. These foreign flagged vessels operate under joint venture or charter arrangements in collaboration with Namibia rights holders.

An important part of the fishery profile is landings by foreign vessels, since Namibian ports (mainly Walvis Bay) provide an important transhipment point for vessels operating in the ICCAT, CCAMLR and IOTC regions. During the period January to March 2008 there were 33 landing events by foreign flagged vessels in Namibia, accounting for some 2,700 tonnes of fishery products. Most of this was large pelagic fish (sharks, tunas, swordfish) from longliners operating outside the Nambian EEZ in the ICCAT area. About 20 tonnes was crabs and shrimps landed from an Angolan vessel. Of the 33 landings, 15 were Japanese vessels (one vessel made four landings) and 15 were Spanish vessels. This level of activity would suggest some 130 landing/transhipment events annually, delivering some 10,000 tonnes of fishery products, providing important levels of associated port activities (stevedoring, harbour dues, bunkerage, crew change and input supplies). These activities, being mostly linked to catches in the ICCAT area, were all subject to the ICCAT port state control scheme.

Marine catches are landed at two major ports: Walvis Bay and Luderitz. Because of its strategic location in the middle of the fishing grounds, most of the landings and processing plants are located in Walvis Bay. All landings are directly into private processing establishments, each of which operates its own quay facilities. There is no central market. Foreign flagged vessels which are not licensed (i.e. which land fish caught outside the EEZ) are required to land in the main commercial port, under customs supervision.

Currently a total number of 30 marine fish processing plants operate in Namibia. Of these 26 are approved for supply to the EC market (i.e. are compliant with the sanitary conditions set out in Regulation 852/2004). Because of the emphasis placed on creation of employment, catches are almost entirely industrial and onshore processing particularly for wet fish (including hake) is promoted. FAO reports that about 85 per cent of the fish landed is processed for subsequent trade.

Fishery products are the country's second most important source of foreign exchange (after minerals). Export values have shown a steady rise (from EUR222 million in 2005 and EUR302.4 million in 2006 to EUR325.7 million in 2007). The European Union is the most significant market. In 2007, the EC imported fishery products valued at EUR231.7 million. Imports have been relatively stable over the period. Whole frozen fish and frozen fish fillets account for the majority of the trade (20% and 68% respectively). This mainly includes frozen fillets of hake, kingclip and monk, often in value added retail packing. However the trade also includes significant quantities of shark, tunas (including albacore) and swordfish. Chilled fish (mainly hake, tuna loins and monkfish, air freighted via South Africa) accounted for about 10% of the trade in 2007 (5,000 tonnes). There are two companies working exclusively with trade in of fresh fish. The main EU point of entry for all of the above products is Spain. Canned pilchard trade with the EC has also been significant, but due to the collapse of the fishery have declined from EUR6.4 million in 2005 to just EUR64,530 in 2007 . The main market for this product is in the UK.

The other very significant export is horse mackerel. Almost the entire catch enters trade – accounting for EUR37 million in 2007, about 11% of export values. The main markets are

Angola, Mozambique and other southern African countries where there are expanding markets for low cost small pelagic fish.

Imports of fishery products in 2007 were valued at about EUR21 million. Imports in 2005 and 2006 were approximately half of this level. This includes landings in Namibia from foreign flagged vessels operating under Namibian fishing licences. Main sources of supply were Republic of South Africa (about 70% by value in 2007) and South American countries (Chile, Argentina). The main species were hake and similar products (a total of 57% of imports) and frozen small pelagic fish (15% of imports). Imports provide important inputs to the white fish processing sector. They also have helped to maintain cannery operations in the collapse of the domestic pilchard stock, and to sustain trade in small pelagic fish to southern African countries (Angola and Mozambique). Imports form an increasingly important part of the supply to fish processing and export sector, and are required to ensure that productivity of processing remains competitive in the global environment, in the face of fluctuating supplies if fish from domestic sources.

The EC is the most important market for Namibian fishery sector, accounting for two-thirds of the export revenues in 2007. Almost all of the fleet segments, with the exception of the mid-water trawl targeting horse mackerel and the rock lobster pot fishery, have significant levels of linkages to the EC market. All demersal fisheries (freezer trawl, wet trawl and demersal long lines) are almost entirely dependent on the EC as the primary market destination. The albacore pole and line fishery also consigns products mainly to Spain, with only small quantities (Japan, S.Africa and USA). The surface long line sector also relies substantially on the Iberian market for swordfish, shark and tuna products, although Asian markets are the destination for shark fins, and relatively small quantities of sushi grade tunas (big eye) to Japan. Japan accounts for some two thirds of the export revenues from red crab, with the balance to the EC. The purse seine fishery relies on the EC as the only significant market for canned pilchards, although it gains revenues also from fishmeal exports to several destinations.

5.1.2 Fisheries management and controls

Fisheries management system

The newly independent Government of Namibia declared a 200 mile EEZ in 1990 (Act NO.3, 1990). Fisheries policy has an objective of “enhanced participation for Namibians” (referred to as Namibianisation), which encourages the utilisation of marine resources by Namibian businesses. Due to the lack of fishing technology and fleet capacity, many of these make charter or joint venture arrangements with foreign vessel owners.

The criteria for granting rights and allocation of quotas are spelt out in the Marine Resources Act of 2000 (Act no.27, 2000). This sets out the policy and powers of the Minister and authorised fisheries officers. It defines fisheries observers and establishes a Fisheries Observers Agency for their management, supported by a fisheries observer fund. The Minister may require any person harvesting marine resources to carry a fisheries observer and to provide facilities for their use. The Act also establishes the system of fisheries management, providing for the issue of access rights to be issued for limited terms. Quotas may also be issued to rights holders by the Minister, but may not exceed the total allowable catch. Rights and quota holders who wish to use a fishing vessel (of any flag) must apply for a licence. Licences are also required for Namibian flagged vessels which wish to fish outside Namibian waters. The law states (Section 40) “ a licence to use a fishing vessels to harvest a marine resource shall only be valid of the licensee holds a right for that resource”. Transhipment is controlled under Section 50, which prohibits any transhipment or landing, by both Namibian licensed vessels and foreign vessels, within the territorial sea without authorisation of the Ministry.

Further provisions are prescribed in the Regulations Relating to the Exploitation of Marine Resources No.241 of 2000. This defines the forms, procedures and fees for the issue of fishing rights, quotas and licences. Out of the 20 fish species commercially exploited in Namibia, seven species are regulated through TACs (Total Allowable Catch), these are pilchard, hake, horse mackerel, monk, red crab, rock lobster, and orange roughy. Prohibited areas are defined; 48 hours notice must be given before departure and entry of fishing ports, port inspections are

required before departure for fishing; technical measures (mesh sizes, trawl design are defined; lobster minimum sizes are defined; prohibited species are defined); fees are introduced for the landing of by-catches

Vessel registration

Vessel registration in Namibia is the responsibility of the Maritime Affairs Department of the Ministry of Works and Transport. Vessel registration is subject to the Ship Registration Act and the Ship Registration Regulations. There is no specific procedure for the registration of a fishing vessel, nor a separate registry. The registry lists some 250 vessels, almost all of which are fishing vessels. There are no reefer transport vessels.

MCS system

In line with Namibia's obligations under the RFMOS (CCAMLR, ICCAT and SEAFO) the Vessel Monitoring Regulations (No.65, 2005) were promulgated to define the requirements for the carriage of satellite automatic location control system. Vessels may be required to carry such a system as part of their fishing licence conditions. The system must comply with the technical specifications as specified by the MFMR, which is also required to establish a vessel monitoring centre.

The Directorate of Operations of the Ministry of Fisheries and Marine Resources is responsible for the monitoring control and surveillance of fisheries activity. The Directorate is based at Walvis Bay and is well founded with a full time staff of 18. MCS assets include two modern patrol vessels (65m and 56m respectively), fully operated by the MFMR, with in-house jetties and maintenance facilities. Each vessel carries two full time fisheries inspectors. Duration of patrols is c.12 days. In addition the MFMR has recently taken delivery of a Cessna 406 for air surveillance, with night flight capacity.

The annual MCS budget for 2007 was N$76.6 million (about EUR6.2 million), which excludes salaries and inland fisheries operations, but includes capital upgrades to existing equipment. The Operations Directorate has participated in the EDF funded SADC Regional Fisheries MCS project[12], under which it benefited from training of fisheries officers in MCS methodologies, supply of computer and communication equipment, and support for drafting of legislation. Under this project Namibia also provided access to its MCS assets for undertaking of joint patrols in the Angola EEZ, with the fisheries administration of Angola.

Observers perform a central role in the MCS system, providing information to the vessel control centre regarding the activities of the vessels on which they are stationed. The observer corps of more than 200 staff is managed by a non-profit making agency "the Observer Agency", established in 1993 and which is funded partially by budgetary contributions and partially by direct charges to vessel operators (based on the time at sea). Observers make daily reports on vessel location and catches, and also undertake checks on technical measures. Since 2006, scientific data (e.g. on weight length, maturity) has been collected separately.

The MFMR has contracted Blue Ray for the provision of the satellite VMS system, but this is currently only partially functional due to a dispute with suppliers over ongoing technical support. Nevertheless, vessels are successfully polled and located, and data is correlated with observer reports. Every landing event is supervised by a fisheries inspector, who attends the direct discharge into factories, or in the commercial port (in the case of foreign non-licensed vessels). Actual landed quantities are weighed on entry to the establishment, and cross checked against daily catch reports submitted by observers and recorded in the vessels' log books. The recorded

[12] The SADC - EU MCS Programme was financed by the European Union to a total of EUR14.55 million. The overall objective of the Programme was to improve management of marine resources in the SADC region. The Programme, which commenced in February 2001, had a duration of five years, effectively terminating at the end of March 2006.

weights are used to determine the fisheries levy and for statistical and quota management purposes. The data also provides the basis for the issue of catch certificates where they are required under the conditions of membership of a relevant RFMO (CCAMLR or ICCAT).

Reefer vessels are required to report to the national port authority, NAMPORT. Licensed fishing vessels may only tranship catch under supervision of the MFMR. Transhipment may only take place with 48 hours notice and in Walvis Bay Harbour (although for practical reasons horse mackerel is allowed to be transhipped off port limits).

Whilst the MCS system provides for a strong level of controls at the operational level, there are no checks made on the relative quantities of input and outputs to fish processing. Especially in the case of the white fish (hake, kingclip and monkfish), and given the sourcing of fish from large numbers of vessels, with different flags, from freezer and factory vessels (including processed at sea), supplemented by imports from several different destinations and the weak traceability onshore in this sector, such checks provide the only means of identifying the presence or otherwise of fish from non-authorised sources. Such forensic style checks may be carried out at the level of the sector, or at the level of the enterprise, and have proved instructive in identifying IUU fishing in other regions.

5.1.3 Export controls for fishery products

Certification of origin

In Namibia, the institutions that are authorised for the issue of preferential Certificates of Origin are the Department of Customs and Excise of the Ministry of Finance, and the Namibian Chamber of Commerce and Industry, and its three regional branches. The Chambers issue all non-preferential certificates of origin, and only issues preferential CoOs in a very limited number of commodities. The GSP CoOs for fishery products are issued exclusively by the Customs Department of the Ministry of Finance.

The procedures is as follows: the exporting company provides the relevant documentation, which includes at a minimum the vessel registration documents, the location of the catch, the crew list and copy of the validated landing document (which defines the area of catch, species, time and date of landing, countersigned by a fisheries office of the MFMR). The company must be on the list of registered exporters held by the Ministry of Finance. Most of the exporters are fishing companies and processors; only a small number are brokers, mainly in the horse mackerel sector.

On the basis of the documents (plus the bill of lading, invoice, the health certificate and the Bank of Namibia control document), the Customs Officer on the spot (Walvis Bay or Luderitz) will issue the relevant certificate of origin. For products consigned by sea, these are usually issued retrospectively, after consignment of the goods; the consignor then forwards the originals to consignee at the port of destination. For air-freighted products, the certificate accompanies the consignment to South Africa, which is consigned in a vehicle under a customs seal. South African customs break the seal, issue a “certificate of non-manipulation”, and supervise the transhipment to the aircraft.

Out of a staff of 30 field officers based in Walvis Bay and Luderitz, four officers are authorised signatories of the certificates of origin. The largest problems seem to be ensuring the precise application of the rules of origin (in relation to determining factors of crew composition, nationality of master, flag of vessel, cumulation) due to variation in these factors present in the different fleet segments and subsequent processing activities.

The Customs department has no routine system for tracking imports and re-exports. Officials report that there is no identification of sources of imports in external trade, particularly in the hake sector, which utilises significant quantities of imported products from S.America and South Africa. It is therefore possible that some fishery products are being falsely declared as being of Namibia origin. There are no checks on enterprises regarding overall quantities landed and imported against quantities traded.

The Customs Department undertakes routine follow up and confirmation regarding requests for clarification from authorities in EC Member States. In 2008 a total of about 200 enquiries were received (mainly from Spain), including some recent ones regarding hake. Two enquiries from EC member States are currently active regarding the certification of origin of large pelagic fish. Most of the enquiries are with regard to documentary inconsistencies, rather than issues regarding origin. The follow–up activity involves requesting the exporter to supply additional documents (copy of registration, crew list, fishing licence). No checks are made in relation to traceability of the consignment within the enterprise, to ensure the linkage between the fishery products which comprise the consignment and the fishery products defined in the catch/vessel documentation.

Sanitary certification

The nominated Competent Authority is the Ministry of Trade and Industry. Until 1st September 2008 the nominated inspection body was the South African Bureau of Standards (SABS), but responsibilities were transferred under the National Regulator for Compulsory Specifications Act (Act 5 of 2008) to a new South African body, the National Regulator for Compulsory Specifications (NRCS). The Namibia Standards Institution was formed on 1 August 2007, and will take over the responsibilities of for inspection and certification from NRCS in the near future. In the meanwhile NSI staff in Namibia undertake all the inspection and certification activities on behalf of the NRCS. The relationship is subject to a Memorandum of Understanding. The sanitary conditions and system for approval of establishments is specified under the Foodstuffs Cosmetic and Disinfectant Act No.29 of 1992, and the specific technical requirements specified under the Compulsory Specifications for Frozen Fish and Marine Molluscs.

The fish inspection and certification function is staffed by 2 inspectors in Luderitz and six in Walvis Bay, plus one manager. All are qualified to BSc level, and have received additional training in HACCP and food hygiene inspection skills.

The Ministry of Trade and Industry is responsible for maintaining the list of approved establishments and vessels, based on the recommendations of NSI following annual and interim inspections. In August 2008, a total number of 26 fish processing plants are approved for supply to the EC market (i.e. are compliant with the sanitary conditions set out in Regulation 852/2004). In addition, 44 factory vessels and 26 freezer vessels are approved. Establishments and factory vessels are inspected every 6 months, freezer vessels are inspected yearly. Other fishing vessels are inspected on average once/year, and are also subject to spot checks when they land fish. When non-compliances are observed certification is suspended, and only if the non-compliance continues are operators de-listed. NSI reports that about 30 freezer and factory vessel are operating at present, and it is apparent that about half of the vessels on the formal list are no longer operating in Namibian waters.

Export sanitary certification is only granted in respect of inspected and approved establishments and vessels. The application form for export certification requires the supplying vessel to be specified. The inspector then checks that it is listed. If it is not Namibian flagged, the inspector also checks to confirm that a) the flag state is permitted to supply fishery products to the European market (under Commission Decision of 6 November 2006 establishing the lists of third countries and territories from which imports of bivalve molluscs, echinoderms, tunicates, marine gastropods and fishery products are permitted) and that the supplying freezer or factory vessel is approved by that state. In case of the non-Namibian origin, the inspector will request the provision of the sanitary certificate issued by the Competent Authority of the flag state.

The inspector will then visit the establishment or vessel and undertake a documentary check and integrity check on the consignment. This may sometimes include a review of processing records to ensure that there is traceability to the declared supplying vessel, but this is not always undertaken. Furthermore there is no specific legal requirement for batch coding of finished product, which substantially undermines attempts to establish traceability. If the inspector decides it is appropriate then a sample is taken, and the export consignment delayed pending results. Sampling and testing of export consignments of frozen fish is routinely undertaken. Samples are sent to SABS for testing. The certificate is not issued until the results are available, often up to one week later. This causes some difficulties for exporters. Sampling

and testing for fresh fish export is conducted only periodically, since testing delays would render the trade unfeasible.

The number of certificates issued is shown in Table 3. The total number of export consignments in 2006 was 3,605, falling to 2,608 in 2007, largely due to a fall in the number of fresh fish exports. Nearly 95% of the exports consignments are consigned to the EC, indicating a high level of dependency on this market. In 2006 about two thirds of the export consignments were frozen, and one third fresh. Frozen exports are usually in containers, typically 20 tonnes net weight. Fresh consignments are much smaller, typically less than 1 tonne.

Table 3: No of sanitary certificates issued for exported fishery products (2006 and 2007)

Product/destination	**No of certificates issues**	
	2006	**2007**
Frozen fish (EU)	2,425	2,242
Chilled fish (EU	945	179
Canned fish (EU)	0	8
Total EU	3,370	2,429
Frozen fish Non-EU	235	179
TOTAL	**3,605**	**2,608**

Source: Namibian Standards Institution

RFMO Catch certificates

Namibia is a contracting party to ICCAT, SEAFO and CCAMLR. Membership of these Regional Fisheries Management Organisations implies adherence to their rules on fisheries management. In the case of the ICCAT and CCAMLR, these rules include catch documentation schemes for sensitive species certification when consigned to international trade. The intention is to provide a cross check on catch declarations, and to provide additional levels of control by preventing products from known IUU fisheries entering trade. The measures apply to contracting and non-contracting cooperating parties. Namibia has therefore implemented the catch certification schemes for Patagonian toothfish (*Dissostichus* spp), unde CCAMLR, and for Bluefin tuna, Bigeye tuna and Swordfish under ICCAT.

The ICCAT bluefin tuna statistical document programme has been operational for several years. At the 2001 meeting, the ICCAT Commission decided to adopt similar programmes for swordfish and bigeye tuna, implemented in 2003. At present, some contracting parties also submit trade data relating to other species, data that are used to estimate unreported catches of tuna and tuna-like species. Namibia for example submits catch documents for albacore tuna. The requirement is that all movement events (landing, export and import) are recorded on a standard form, and the data is submitted to ICCAT. The responsibility for the implementation of the scheme is that of the port state in whose territory the movement is taking place.

The CCAMLR Catch Documentation Scheme (CDS) for toothfish is a global scheme open to all States which fish for, or trade in *Dissostichus* spp. irrespective of whether they are members of CCAMLR or not. All landings, transhipments and importations of toothfish into the territories of all Parties to the CCAMLR must be accompanied by a completed Catch Document specifying information relating to the volume and location of catch and the name and Flag State of the vessel. The core element of the Scheme is a database where participating countries can access Catch Documents and related information through a secure Internet connection in order to verify

Catch Documents. A summary of CDS data is published annually as part of CCAMLR's Statistical Bulletin.

Both ICCAT and CCAMLR schemes are implemented by the MFMR. The basis for the issue of certificates in relation to catches by Namibian licensed vessels (whether Namibian or foreign flagged) is the landing declaration. All landings are subject to inspection by a fisheries officer, which includes verification of the catch and species. When an exporter is due to submit a consignment of product for export, the relevant RFMO certificate is completed and submitted to the MFMR for validation. The MFMR in Walvis Bay cross checks the declaration on the certificate with the copy of the landing declaration, and if the details correspond then the certificate is validated.

In relation to landings of bluefin and bigeye tunas and swordfish by foreign vessels, the key elements required for issue of a certificate under the ICCAT scheme are:

- Copies of valid licences, registration documents, functional VMS requirement, flag state authorisations, crew list, log sheets, ICCAT registration document, vessel registry on ICCAT website and provisional cargo manifest must be faxed to the MFRM regional office 48 hours in advance of landing
- The flag state must issue a confirmation note of non-IUU activities and consent for discharge in Namibia
- On-the-spot monitoring of discharge by species and weight by MFMR inspectors
- Completion of a port state inspection form
- Reporting of event to Flag State and ICCAT secretariat using the required forms
- Issuance of ICCAT catch certificate in relation to relevant species (Big eye tuna, bluefin tuna and swordfish).

Where vessels cannot comply with the above requirements they are refused entry. MFMR officials report that this occurred once during 2007, when a Chinese vessel was refused permission to discharge in Namibia.

CCAMLR procedure operates similar procedures, except the application and permits are issued online via the CCAMLR website. The certifying port state authority is issued with a CCAMLR generated secure certificate number against each application, as an additional security measure against fraudulent issue of certificates. However, only 3 toothfish catch certificates have been issued by MFMR since the implementation of the scheme in 2007.

CITES Certification

Namibia is home to four marine species listed in the Appendices to CITES. These are the white shark *Carcharodon carcharias,* and the smalltooth sawfish *Pristis pectinata* (both CITES Appendix I). Capture of the white shark is prohibited by the Marine Resources Act. Two species are listed in CITES Appendix II. These are the whale shark *Rhincodon typus* and the cape fur seal *Arctosephalus pusilus*. Namibia has a major harvest of seals (reportedly accounting for 10% of the world's sealing) with up to 80,000 seal culled on the beaches of Lüderitz and Cape Cross. Seal products (which including pelts, fats and dried penis) are an important traded commodity. All of the routine CITES certification is undertaken in relation to seal products.

CITES controls are coordinated by the Scientific Services Department, Directorate of Parks and Wildlife Management of the Ministry of Environment and Tourism which is the nominated CITES Management Authority. The Ministry of Marine Resources and Fisheries is the nominated Scientific Authority for the marine species, and under the MFMR, the National Marine Information and Research Centre, in Swakopmund is charged with the responsibility for scientific studies.

Each year the Centre studies seal population's fecundity, birth weight and survival weights. Aerial surveys are also conducted every 2-3 years. Based on the data, the Centre estimates an annual TAC in terms of maximum number of seals that may be taken by the three concessionaires. Export permits are issued by the Ministry of Environment and Tourism, in response to an application in respect of each export consignment. The applications for CITES export certificates are passed to the MFMR, for comment. Following a check on the running

total of exports against the annual TAC and providing that the TAC has not been exceeded for that year, the MFMR issues a "*non-detriment finding*". There are no export quotas allocated to individual exporters. Some problems are reported to have arisen when pelts are stored from one season to the next, giving rise to an apparent catch in excess of TAC.

5.1.4 Status of traceability systems

There is no requirement in Namibian law for such systems to be applied as a condition of EC approval. Technically the Namibian legislation could be regarded as not being at least equivalent to EC requirements in this respect. Nevertheless a number of establishments have introduced traceability systems and a DG SANCO mission in 2005 found that traceability systems in the establishments visited by FVO inspectors were generally satisfactory[13]. However, more detailed discussions with NSI inspectors, MFMR and with industry representatives revealed that some segments of the industry have not introduced important elements of traceability systems, such as allocation of supplier codes, separation of raw material batches and allocation of batch codes to final products. In particular implementation of the required "one up, one down" traceability in the hake processing sector would be expected to present a very significant logistical challenge, with impacts on productivity. The box below shows an example of the difficulties faced by one large vertically integrated fisheries processor.

Traceability issues in the Namibian hake sector

In one company operating two factories, raw material supplies are derived from a dedicated fleet of 20 vessels, comprising Namibian vessels operated by the enterprise, plus Spanish vessels operating under charter arrangements. These include vessels operating in four distinct segments: wet fish trawlers, delivering gutted fish on ice, freezer trawlers which head, gut and freeze onboard, and factory vessels which fillet and freeze onboard. Each day 2 or 3 vessels will discharge at each of two processing establishments, delivering some 80 to 120 tonnes of product. In addition, the enterprise imports annually 150 to 200 containers of hake, other white fish and some shrimp, mainly from South Africa, Chile and Argentina. All of this raw material is packed and processed in the two establishments, with a product range of more than 200 final products, many of which are in retail, or value added packs, in some cases combined with other products/species. Vessel level traceability systems are not implemented (Given a specific exported consignment, it is not possible to identify the supplying vessels, which are likely to be numerous).

5.1.5 Type and volume of certification required for implementation of the Regulation

There are two activities which the MFRM will need to undertake in relation to the implementation of the new regulation:

Activity 1: Validation of catch certificates from Namibian vessels landing in Namibia and in other countries.

Almost all Namibian flagged vessels land in Namibia, even if they catch in neighbouring EEZs. Namibia has a well founded fisheries MCS system with good functional VMS, observer corps, patrol vessels and aircraft. The main assets are dedicated to fisheries surveillance (not multi-tasked). There is a body of fisheries inspectors, all landings are monitored and an effective landing declaration system is in place. There are no landings from small scale fisheries. All of

[13] FINAL REPORT of a mission carried out in Namibia from 18 to 28 April 2005 assessing the conditions of production of fisheries products intended for export to the European Union, Food and Veterinary Office, DG SANCO; European Commission

this ensure that there is virtually no illegal fishing by unlicensed vessels in the Namibian zone. Generally, levels of compliance by licensed vessels appear high[14]. This means that there is a good evidential basis for the validation of landings by Namibian vessels.

Activity 2: Provision of statements in relation to import and re-export of processed fishery products (indirect importation to the EC)

Almost all of the fishery product exports are consigned via processing establishments. Regulation 1005/2008 requires that, in addition to the original catch certificates, such consignments must be accompanied by additional declarations from the competent authority of the consigning country, as well as the certificates issued by the flag state. It is estimated that imports from other third countries contribute at least 10% of the value of exports to the EC, proving a small but important part of the external trade. The Competent Authority will need to issue "processing statements" in accordance with Article 14 and Annex IV of the Regulation. Imports of fishery products, valued at EUR21 million in 2007, are almost all exclusively for re-export to the EC. It is estimated that annually imports comprise some 200 containers of frozen fishery products. Where they are not processed, the Namibian Customs and Excise already has in place the system for the identification of the fishing vessel or the container, and the issue of certificates of non-manipulation. However most of the imports enter processing, where they supplement locally caught raw materials. Where products are processed the Competent Authority will need endorse a processor's statement of the exact processing steps and quantities. This will require the MFMR and/or the Customs to ensure that imported raw materials entering processing establishments are tracked and recorded. It appears that at present these products are exported as Namibian origin, suggesting that existing application of rules of origin by Namibian customs is not effective.

A brief analysis of numbers of fleet composition and landing patterns by Namibian flagged and foreign flagged vessels is shown in Table 4 below. This suggests that there would be an annual demand for the issue of at least 4,158 certificates under **Activity 1**. This assumes that one landing gives rise to one certificate. However in practice the fish contained in a single landing event is likely to be included in several export consignments, which suggests a higher number of certificates. With regard to **Activity 2,** the number of "processing statements" in accordance with Article 14 and Annex IV of the Regulation could correspond to the number of sanitary certificates issued (3605 in 2006, and 2608 in 2007) so a target of 3,000 would appear to be appropriate.

In November 2008, 70 foreign flagged vessels operated in the Namibian fishery, and Namibia may need to respond to requests for port state controls made by their flag states. This includes countries such as South Africa, Spain, Russia and a number of flags of convenience (St.Vincent and Grenadines, Belize and Georgia).

In summary, in Namibia, the likely volume of certification and related activities generated by Regulation had it been implemented in 2008 would have been and issue of 4,200 catch certificates; issue of about 3,000 Annex IV declarations.

[14] Although there is one ongoing case regarding discarding in the horse mackerel fishery (which in any case is conducted by foreign flagged vessels and is not linked to the EC market) see Annex 10

Table 4: Estimated numbers of landing events in Namibian and foreign flagged fleet segments associated with the exports to the EC, 2008

Segment	No. vessels		Estimated No. Landings/year/ vessel	Estimated No landing events/ year	
	Namibia flag	Other flag		Namibia flag	Other flag
Wet hake	59	3	35	2,065	105
Freezer hake	11	4	5	55	20
Wet monk	22	0	35	770	0
Long line hake	14	0	35	490	0
Surface long line	32	12	10	320	120
Pole and line	8	32	10	80	320
Line fishing	11	0	20	220	0
Crab	2	0	4	8	0
Purse seine	10	0	15	150	0
Non-licensed	0	30			132
TOTAL				**4,158**	**697**

Sources: Industry consultations; MFMR MCS Quarterly Reports, January – March 2008

5.1.6 Technical and administrative capacity for catch certification

The effective monitoring of vessel activities (by observers and satellite VMS), the strong control over landing and the relatively high level of compliance of Namibian flagged vessels means that, for **Activity 1**, Namibia should be able to comply with the *prima facie* requirements of Regulation 1005/2008 without much difficulty. This would ensure the continuity of the exports from this source. The only extra-territorial landings identified by the mission were linked to IUU activities, and these should be eliminated by the new measure. However, one exception might be lawful operation of Namibian vessels in other regions. To comply with the Marine Resources Act, such vessels are required to draw a Namibia licence and are required to carry a satellite VMS, even though they do not operate in Namibian waters.

Neither the MFMR nor the Customs and Excise Department track consignments entering processing. At present, imports are the sole concern of the Customs and Excise Department of the Ministry of Finance. With regard to **Activity 2**, nominally, the steps for validating certification of origin (GSP 1 Form) should be sufficient, but these are only weakly implemented at present, relying entirely on documents supplied by the exporter without the need to establish a physical link between the export consignment and the origin. Once the items are cleared for import there is no attempt to ensure that they are identifiable in export consignments. As a result, it appears that there is the possibility that the origin of fishery products exported to the EC is being mis-declared on the Certificates of Origin, as wholly obtained in Namibia. This is most evident in the hake sector, where some Namibian exports may be of South African and South American (and in some cases non-preferential) origin.

As a result of the poor data quality and the lack of effective controls regarding origin of imported raw materials, it will be difficult for the Competent Authority to issue declarations in relation to the catch certification and processing of consignments containing fishery products imported

from another third country. As a result, effective implementation of **Activity 2** in Namibia is likely to require a significantly strengthened system of origin controls.

5.1.7 Official checks on origin

Although landing declarations are verified on the spot by the presence of the inspector on landing at the receiving factory (where weights are confirmed) there are no additional checks to link the exported consignment with the fishery products described on the landing declaration. This is a common fault in the Namibian approach catch documentation schemes for ICCAT and CCAMLR, and in the Certification of Origin, both of which rely on the exporter to indicate the originating vessel.

The MFMR does not require implementation of a traceability system, which in the absence of quantitative cross checks to measure and identify entry of non-declared catches to the distribution chain (see below) would significantly undermine the validity of the catch certification system were it to be implemented on the basis of current controls. The absence of a verifiable requirement for traceability, and the lack of quantitative cross checks to identify the entry of undeclared catches into distribution, means that system would be open to exploitation by fraudulent operators.

The issue of valid Annex IV Declarations implies that such firms will need to be able to prove the origin, to vessel level, of material in each unit of export (however defined). This presents a significant technical challenge to industry, and will require investment in electronic data systems and training of staff in implementation of traceability systems, including operator, technical and managerial levels.

In relation to **Activity 2**, the Competent Authority will need to develop the technical capacity to undertake official checks to ensure the validity and reliability of the traceability data generated in relation to export consignments. This will require the development of capacity to evaluate effectiveness of traceability systems, and to undertake tests to evaluate system performance.

Furthermore, quantitative analysis of inputs and outputs to processing has proved to be a useful tool for enforcement authorities seeking to confirm the entry of undeclared fish landings into the distribution chain. This kind of analysis is not undertaken at present, neither by MFMR nor Customs and Excise. There is no investigative capacity to undertake these checks, and it will need to be introduced to ensure the effective implementation of the Regulation 1005/2008.

5.1.8 Namibia Needs assessment

Namibia is well placed to respond effectively to the regulation 1005/2008 in the short term. However, there are a number of activities and investments required to achieve full compliance.

The following activities and means will be required to ensure the result of the effective implementation of the catch certification scheme in relation to the Namibian situation.

Activities	Means required
Legislation to establish catch certification system	Legal drafting
Strengthened inspection and control on landings	Recruitment of staff, training in certification scheme, traceability and quantitative analysis of enterprises
Design and implementation of certification and Annex IV documentation systems	Legal drafting of detailed procedures regulations defining the catch certification scheme

5.1.9 Expected impacts of catch certification on illegal fishing

There have been a small number of well documented cases of Namibian vessels participating in IUU fishing on the high seas and within the region. There are existing allegations of under-declaration of catches in the horse mackerel fishery. The IUU risks in Namibia are considered in more detail Annex 12. However, in general, the risk of IUU fishing associated with the Namibian fleet is considered to be low.

Given the generally low risk of IUU fishing activities in the Namibian EEZ, the IUU catch certification system is not expected to impact on the resource conditions. There are therefore no direct benefits identifiable to Namibia. Indirect benefits may include reduced costs to enterprises due to improved quality and stock control associated with the introduction of traceability systems. In the longer term by implementing the catch certification system Namibia will be able retain access to the EC market.

5.2 Indonesia

5.2.1 Fishery sector profile

Indonesia is a South Asian archipelago of 1,700 islands spanning the southern Indian Ocean and the Western Pacific. It has a very long coastline of 81,000 km and a maritime zone of 5.8 million km^2. It has mixed tropical fisheries, which is of vital national importance. Marine fisheries resources are classified into large pelagics (skipjack, other tunas, billfish, oceanic sharks and small tuna), small pelagics (scads, mackerels, sardinellas, trevallies, engraulid anchovy), demersal and coral reef fishes (groupers, snappers, rabbitfish, etc.); and shrimp and other crustaceans, etc. The Ministry of Marine Affairs and Fisheries (MMAF) logbook lists 108 different species subject to commercial exploitation.

The Ministry of Marine Affairs and Fisheries estimates that the MSY of marine capture fisheries is in the region of 6.4 million tonnes/year, and that marine catches in 2007 were about 4.5 million tonnes. Whilst total production of marine capture fisheries has showed a steady increase, production of tunas and shrimps has stayed about the same in recent years. Large increases in production are observed in blue crab, squid, cuttlefish and miscellaneous fish species including *Sardinella* spp., croaker and groupers. Overall in marine capture fishery in 2004, tunas represented 16.6% of production, shrimp was 5.5%, other fish species was 70.3% and other aquatic organisms (molluscs and other invertebrates) was 7.6%. More details are given in Annex 5.

Marine fish production is widely dispersed throughout the country, but Sumatra, Java and Papua are exploited most intensively. Trawling has been banned in many areas following conflict between trawlers and small-scale fishermen. Inland fisheries and aquaculture (marine, brackish and freshwater) are also of importance in fish production. Aquaculture is strategically important sector, from the point of view of supplies to both domestic and export markets. Production in 2006 was 2.7 million tonnes. In total, an estimated 2.2 million people are employed in marine fishing, and about half a million in inland fishing.

The fleet is characterised by a large number of relatively small vessels and a wide range of different fishing gears. The number of marine fishing boats has shown a steady increase since 1998. The number of registered craft in 2007 was 590,317. The fleet is dominated by large numbers of small vessels, with about 92% of vessels (542,547) either non-powered, powered by outboard engines or <5 GT. Since 2007 (when foreign flagged operators were prohibited from operating in the Indonesian EEZ) there are no landings by foreign flagged vessels. The MMAF lists 37 different fishing gears in common use. Common gears are troll lines, handlines, trawl nets, purse seine or ring nets, gillnets (both set and drift), surface and bottom set longlines and trammel nets. Jigging for squid is also a common method for these species. Fixed gears such as scoop nets and fish traps (with or without guiding barriers) are also widely used in coastal fisheries. The numbers of gears registered in 2006, was approximately 1.2 million units. Some of the most important industrial fleet segments are demersal trawling (11,992 trawl gears were registered in 2006) Long lining (30,000 pelagic long lines in 2006, about 9,000 with tuna as the primary target, and 17 being distant water vessels of 400 to 500 GT); Purse seine (20,211 purse

seine nets and 36,000 Danish seines were registered) and Pole and line (6,800 vessels were registered).

Officially, there are 21 fishing ports subject to the control of the central government, and under the direct control of the MMAF, and an additional 700 designated landing sites subject to control by provincial and district governments. However, in practice fish is landed at an unknown number of other places including beaches, and commercial harbours not subject to the direct control of fisheries administrations at either federal or provincial level.

There are large numbers of domestic traders and distributors who reconcile the supplies of fishery products with domestic and export market demands. This trade conducted by so-called "middle men" is not regulated or recorded, but is an essential economic feature of the fishery sector. Many processors rely on a number of trusted middlemen, placing specific orders for product to meet the export orders received.

The formal fish processing sector comprises of more than 700 enterprises, excluding small scale artisanal processors. This includes 8 fish canneries, and about 50 processors or fresh and frozen tuna products. The balance includes fish freezing, salting and drying processors. Fish processing operations are classified according to their compliance with GMP (Good manufacturing practice) and HACCP standards. There are 182 establishments classed as fully compliant (Class A), which are permitted to supply the EC market. Establishments classed as B and C may export, but only to non-EU markets. Typically class B establishments will work with US and Japanese markets and class C with other SE Asian markets. Recently the MMAF signed a MoU with South Korea and China that only Class B establishments may export to these markets.

Indonesia is a net exporter of fishery products, earning on average some EUR1.5 billion per annum during the period 2005 to 2007. About half the exports are in the form of crustacea, mainly shrimp and crab. The balance of exports comprises a wide range of fresh, frozen and canned fishery products. Tunas are also an important export product accounting for some EUR107 million of annual exports (mainly in fresh form) which accounts for about 70% of exports. With regard to the EC market, over the period 2005 to 2008, Indonesia has annually consigned some 55,400 tonnes of fishery products, valued at EUR227.8 million. The EU therefore accounts for about 15% of Indonesian exports by market value. In volume terms, and accounting for yields, the EU exports account for only about 2 or 3% of the national production of 4.5 million tonnes. Exports to the EC are represented by a wide range of species and products, covering all categories of fresh, frozen, canned fish, crustacea and molluscs. The volume of trade between the parties has declined by about 20% since the implementation of the sanitary food safety safeguard measures by the European Commission which impacted on trade in tunas, cuttlefish, swordfish and sharks. Despite the partial lifting of the safeguard measures in 2008 many exporters remain cautious of the EC market and prefer to remain with the alternative markets they have developed. The safeguard measures have not had much impact on the industry due to the diversified market.

Imports of fishery products for human consumption are limited in quantity and value. The imports during 2005 to 2007 shown an average of about 50,000 tonnes per annum valued at EUR34 million. Imports were about 2% of exports[15]. Of total imports canned fish accounted for EUR3 million and chilled and frozen fish about EUR15 million. Some tuna imports are reported for processing and re-export, to allow exporters to maintain supplies to market during seasonal drop in domestic production[16]. Imports of frozen tunas for canning were only about EUR2 million/year. The majority of the imports of frozen fish for canning were in the form of mackerel, which is processed for domestic markets only.

[15] Indonesian Fisheries Book, MMAF/JICA, Ministry of Marine Affairs and Fisheries, Jakarta, 2008

[16] Personal communication, Mr.Surya, Indonesia Fish Cannery Association

5.2.2 Fisheries management and controls

Fisheries management system

The Ministry of Marine Affairs and Fisheries is nominated as the legally responsible organisation for fisheries management, including inland fisheries and aquaculture. The Ministry is organised into 5 Directorates General; Capture Fisheries, Aquaculture, Surveillance and Control of Marine Resources and Fisheries; Marine Coastal and Small Islands; Fisheries Product Processing and Marketing.

The basic law governing fisheries is Law No. 31 of 2004 concerning Fisheries (replaced the Law No. 9 of 1985). Other important measures are

- Presidential Decree 39 of 1908 restricted the use of trawl nets in many regions.
- Fishing zones according to distance form shore are determined by the Decision of the Minister of Agriculture no.392 of 1999
- The Decision of the MMAF concerning the regulation of fishing vessel operations in the EEZ establishes foreign access conditions (joint ventures, purchase in instalments and licensing). This was amended in 2007 to prohibit the licensing of foreign flagged vessels for fishing in the EEZ of Indonesia.

Governance is exercised through a federal and provincial structure. Central Government responsibilities are clearly defined in the constitution of 1945. Indonesia consists of 33 provinces, seven of which have been created since 2000. Provinces are further divided into municipalities. All provinces are coastal and about half of the districts are estimated to be so.

Law no 32 of 2004 on Regional governments provides the right of provincial governments to manage natural resources in their areas, up to 12 nm from the base line. Article 65 of Law No. 31 on Fisheries also delegates responsibilities for fisheries management licensing, surveillance and control in respect of all vessels less than 30GT and operating in Fishing zones 1 and 2 to Provincial government (i.e. up to 12 miles from the baseline). Therefore, the management and control of the smaller vessels falls clearly within the mandate of the 33 provincial governments. No licence required is required for vessels smaller than 5GT.

Licensing is regarded as an administrative function. There is no limit to the numbers of licences. Although all vessels must be registered, it should be noted that there is no linkage between the vessel registration and licensing requirements (in fact the allocation of responsibilities between central and provincial government is not consistent). Neither is there a clear link with the VMS requirement, discussed below.

Since 2007, a Ministerial decree has prohibited the licensing of foreign flagged vessels to fish in Indonesian waters under joint venture arrangements. This measure was introduced because of the difficulties of surveillance and enforcing fisheries controls on foreign operators. Since 2007, foreign operators seeking to fish inside the Indonesian EEZ must a) operate under a joint venture with an Indonesian operator and b) flag their vessel under an Indonesia flag. At the same time, transhipment at sea to foreign flagged carrier vessels has also been prohibited. Since the introduction of this measure, there have been no landings from foreign flagged vessels.

Vessel registration

Vessel Registration falls under the authority of the Ministry of Transportation, Directorate General and Sea Transportation, Directorate of Marine safety. Vessel registration is governed by the Law no 17 of 2008 on Shipping. There are an estimated 36,000 vessels on the shipping register. The details have not been entered onto a database and there is no detailed breakdown. There is no separate register of fishing vessels, but the Directorate estimates some 5,600 vessels are registered, in 3 categories (>24m, 12-24m and 7-12m). Registration categories are based on length (LOA), whereas fisheries licences are based on tonnage (GT). Not all vessels are registered centrally; vessels <7m are registered at provincial government.

Fishing vessel registration is also required by Law No. 31 of 2004 on Fisheries, to include the submission of additional information. This requires the submission of a proof of ownership, identity of the owner, and certificate of measurement (in Gross Tons) before a vessel can be registered. In the case of a foreign fishing vessel intending to register under the Indonesian flag, a de-registration certificate should also be presented to the government. The range of information collected is rather limited and omits important data such as type of vessel and method of fishing and types of fishing gears, length and engine particulars. However, such information is required to be submitted in the application for an annual fishing license, under Law No. 31 of 2004 concerning fisheries.

In addition, applications for registration of fishing vessels are always submitted to the MMAF for an opinion regarding licensing conditions. In this way, installation of satellite VMS can be mandated, and policy is to require this on vessels above 100GT. The Ministry of Marine Affairs and Fisheries and the Ministry of Communication have embarked on a "one stop" policy with regard to vessel inspection as a requirement for obtaining fishing license.

MCS system

The Directorate General of Surveillance and Control of Marine Resources and Fisheries (DG S&C) of the Ministry of Marine Affairs and Fisheries is the organisation responsible at national level for ensuring overall compliance with fisheries laws. However, in terms of jurisdiction, the DG S&C is responsible only for the vessels exceeding 30GT which are licensed by the Ministry. Vessels below this size are licensed by the Provincial Governorates, and the provinces are also responsible for enforcement of all fisheries regulations in respect of these vessels.

The DG S&C operates through 451 armed inspectors (in 2007) who are dispersed throughout a number of regional operating bases at strategic locations (up from 94 inspectors in 2002). There are operating bases in Jakarta and Bitung, and sub-bases in Belawan, Pontianak and Tual. A total of 21 seagoing patrol vessels and 31 speedboats/rigid inflatables with outboards are available. There is no data on operational days at sea, but the vessels are clearly active. In addition, to the in house capacity of the MMAF, the Indonesian Navy and Police are also mandated under the Fisheries Law to undertake enforcement actions. The Indonesia Air Force also undertakes air surveillance, and is used to specifically identify illegal transhipment at sea. However, the operational communication of the different services is weak, with each tending to operate independently on ad hoc agendas, with no real cooperation between them on specific control targets.

A major target is the apprehension of illegal fishers (unlicensed vessels, whether Indonesian or foreign flagged vessels) and the geographical focus is on the Natuna Sea, Pacific Ocean (adjacent to Philippines EEZ) and the Arafura Sea. In 2008 to date, the 21 patrol vessels stopped and inspected 1654 vessels at sea. However evidence from longline fishers based in Bali and operating in the full extent of the EEZ suggests that national flagged operators are rarely, if ever, inspected at sea.

The MMAF operates a satellite VMS system based on the ARGOS/INMARSAT and the control system is supplied by 4 providers including Argus, Bluefinger and PSN. The Ministerial decision No 29 on VMS requires the installation of Satellite VMS systems onboard vessels above 60GT as a condition of the fishing licence. All licensed foreign vessels were also required to carry VMS (until excluded from licensing in 2007). Compliance with the regulations is reported to be limited[17], and the actual operational status of the system is not known. Up to October 2008, 2,456 vessels were installed with VMS out of 3, 293 licensed vessels above 60GT. The programme is ongoing and the target is that by 2010 all vessels above 30GT will be fitted with satellite VMS (total of 4520 vessels licensed in 2008).

[17] Didik Mohamed Sodik, "Combating IUU Fishing in Indonesian Waters; the need for fisheries legislative reform", PhD Thesis, University of Wollongong, Australia 2007

Until now here are no plans to extend the satellite VMS system to vessels below 30GT which fall within the jurisdiction of the provincial government. Furthermore, the current legal requirement applied to Indonesian vessels is that the VMS system is only mandatory when operating in the EEZ. Outside the EEZ on the high seas, there are no requirements on vessels with the system installed to operate it. There is no established system of observers.

Regional plan of action on IUU fishing

Following the FAO supported International Plan Of Action To Prevent, Deter And Eliminate Illegal, Unreported And Unregulated Fishing, countries within the region have adopted, in 2007, the **Regional Plan of Action on IUU fishing** under the auspices of the Asia Pacific Fisheries Commission (APFIC), and promoted by Indonesia and Australia. This is described in the box below.

Regional Plan on IUU fishing

Under the auspices of the Asia Pacific Fisheries Commission (APFIC), the Fisheries Ministers of 10 countries - Australia, Brunei Darussalam, Indonesia, Malaysia, Papua New Guinea, the Philippines, Singapore, Thailand, Timor-Leste and Viet Nam – agreed to a collective approach to promoting more responsible fisheries at a meeting in May 2007. The plan covered the South China Sea, Sulu-Sulawesi Seas and the Arafura-Timor Seas.

The RPOA objective is to enhance and strengthen the overall level of fisheries management in the region to sustain fisheries resources and the marine environment. The RPOA outlines the current resource and management situation in the region and calls for joint work to compile an overview of artisanal and industrial fishing, current status of fish stocks, trade flows and markets.

As a first critical step it encourages countries of the region to ratify, accede, accept fully UNCLOS and UNFSA, relevant RFMO agreements and other relevant multilateral agreements and established international instruments – UNCLOS, UNFSA, FAO Codes, Agreements and IPOAs. A key commitment is that “all coastal States, relevant flag States and fishing entities operating in the region should actively cooperate in ensuring that fishing vessels entitled to fly their flags do not undermine the effectiveness of conservation and management measures, including engagement in or supporting illegal fishing”. However, until now no specific measures on a regional basis have been proposed.

5.2.3 Export controls for fishery products

Certification of origin

Between 1 July 2003 and 30 June 2008, Indonesia was the beneficiary of an annual tariff quota (order no. 092007[18]) of 2,832 tonnes per annum of canned tuna exports to the EC, on the condition that they were originating products and accompanied by a certification of origin in compliance with article 47 of Regulation (EEC) No 2454/93.

Preferential certificates of origin may only be issued by the Ministry of Trade, by the Directorate General of International Trade, Department of Export-Import Trade Facilitation. When CoO are required, the exporter applies directly to the Department of Export-Import Facilitation in Jakarta, in one of the Regional Offices (located in each of the 23 Provinces). The MoT officials cross check the invoice, bill of lading and sanitary certification with the application form and declaration of origin by the exporter, prior to issue of the certificate. There is no routine follow up or investigation of origins of raw material; the assumption is that all fishery products are

[18] Council Regulation (EC) No 975/2003 of 5 June 2003 opening and providing for the administration of a tariff quota for imports of canned tuna covered by CN codes 1604 14 11, 1604 14 18 and 1604 20 70.

exported ex- Indonesian flagged vessels. There is no awareness that for example some of the raw material entering tuna canning sector could be derived from other third countries operating fleets in the SW Pacific Ocean.

There is no concept of approved economic operators in the fishery sector, although the Ministry of Trade does apply a procedure for supervision of exports by state owned enterprises of exports in strategic sectors such as timber and mined commodities. These SOEs undertake close level supervision of the activities of operations which are licensed to extract and export these resources. Activities include inspection of chain of custody (i.e. traceability) and an example is the Timber Industry Revitalisation Body (BRIK) operating under the mandate of the Ministry of Trade. However, the bodies (at least in respect of timber) have come under a significant level of criticism since the controls have had only limited effectiveness.

Sanitary certification

The sanitary conditions for the import into the Community of fishery products from Indonesia were established by Commission Decision 94/324/EC of 19 May 1994 laying down special conditions governing imports of fishery and aquaculture products originating in Indonesia (OJ L 145, 10.6.1994). In October 2008, Indonesia had 129 approved processing plants (including 92 which are used for farmed aquaculture products) and 7 approved freezing vessels.

The present nominated competent authority for sanitary controls is the Directorate General of Fishery Product Processing and Marketing, where the Directorate of Accreditation operates a team of inspectors responsible for the application of sanitary approval of establishments. Sanitary conditions on board freezer vessels and fishing vessels are however enforced by the DG Capture Fisheries, whilst the DG Aquaculture is responsible for enforcement of controls with respect to veterinary medicines and their residues in aquaculture products. Sanitary conditions for export to the EC along with the relevant certification procedures are defined in Decree No.KEP010/DJ P2HP/2007 “Regarding official control and monitoring of fishery products” and decree no.067/2008Regarding guidelines on the implementation of the safety assurance system.

To implement the system, the DG FPPM has established a Fish Inspection and Quality Control Unit and has appointed 29 full time inspectors to this function. In addition, some 295 inspectors employed by Provincial Fisheries Departments are nominated as authorised officers for the purposes of inspection of vessels, establishments and sampling. The Government has invested in 24 laboratories (one central laboratory and 23 provincial). All are well advanced in seeking accreditation to ISO17025 standards, and this is expected to be completed in 2009, demonstrating a high level of technical competence.

When a consignment is to be prepared for export, the establishment applies in writing to one of the 23 Provincial laboratories in the Provincial Departments of Fisheries. An appointment is made for sampling and inspection. An inspector visits the establishment and if required a sample is taken. For frozen fishery products this is done at least one week in advance of the export, to provide sufficient time for the test results to be obtained from the laboratory. For fresh exports, no samples are taken, or sampling is undertaken in the knowledge that product will be exported in the meanwhile. In all cases the inspector will seek to supervise the sealing of the export container. Additional checks may be made in relation to processing records, traceability, or results of any other routine testing. The certificate is signed and stamped by the Head of the provincial Laboratory. No additional checks are made. Customs officers (under the Ministry of Finance) may check that the certificate is presented with the export documents, but only where requested by the MMAF. The responsibility for ensuring compliance with the requirement is that of the exporter.

Following the Community inspection visits to Indonesia of September 2005[19], which revealed serious shortcomings as regards hygiene in the handling of fishery products, Commission Decisions 2006/236[20] introduced measures which required the sampling and testing of each consignment of fishery products for compliance with requirements for heavy metals and histamine limits as set out in Community legislation. The measure was amended in July 2008[21], to exclude aquaculture products and histamine testing from the requirements, following the receipt of appropriate guarantees from the Competent Authority.

Numbered export sanitary certificates are printed centrally by the MMAF, and supplied to the provincial laboratories, with a record kept of the numerical sequences as an anti fraud measure. Where product is rejected at the port of destination, the Provincial laboratory always undertakes an investigation in collaboration with the MMAF DG Fishery Products Processing and Marketing, to identify the source of the non-compliance and defined the corrective actions required. During such an investigation the export approval is suspended, and the establishment is not allowed to export until any non-conformities have been addressed.

It is estimated that the MMAF issued more than 53,000 sanitary certificates in 2008, of which about 18,000 were for consignments to the EU. Each certificate for an EC consignment covered a consignment of average value EUR11,000.

RFMO catch certification

Indonesia is a member of Indian Ocean Tuna Commission (IOTC) and Commission for the Conservation of the Southern Bluefin Tuna (CCSBT). Although not a member of the Western and Central Pacific Fisheries Commission (WCPFC), since 2006 it has been a non-contracting cooperating party. This means that it has undertaken to abide by the management measures and rules applicable to members, although the country does not have a vote in Commission decisions.

The Commission for the Conservation of the Southern Bluefin tuna (CCSBT), of which Indonesia is a member, implemented a Trade Information Scheme (TIS) on 1 June 2000. The objective is to collect more accurate and comprehensive data on SBT fishing through monitoring trade. The core of the TIS is the provision for all Members and Cooperating Non-Members of the CCSBT to maintain requirements for all imports of SBT to be accompanied by a completed CCSBT Statistical Document. The Document must be endorsed by an authorised competent authority in the exporting country (originally the flag state of the vessel) and includes extensive details of the shipment such as name of fishing vessel, gear type, area of catch, dates, etc. Shipments not accompanied by this form must be denied entry by the Member country. Completed forms are lodged with the CCSBT Secretariat and are used to maintain a database for monitoring catches and trade. Reconciliation of these forms is conducted against electronic lists of exports submitted by CCSBT Members and Cooperating Non-Members. The TIS also deters Illegal, Unreported and Unregulated (IUU) fishing by effectively denying access to markets for SBT. The Scheme requires the Document to specify the country of destination. However, there is no certification of the legality of the catch, nor of the access right of the vessels which caught the fish.

Being a member and a catching nation (albeit as a bycatch in the bigeye long line fishery) for the southern bluefin tuna (with 7% of the 2008 quota of 11,800 tonnes), Indonesia has

[19] Report of a follow up mission carried out in Indonesia from 19 to 30 September 2005 assessing the conditions if production of fishery products intended for export to the EU, Food and veterinary office, DG SANCO; DG SANCO/7550/2005 MR Final European Commission

[20] Commission Decision 2006/236/EC of 21 March 2006 on special conditions governing fishery products imported from Indonesia and intended for human consumption

[21] COMMISSION DECISION 660/2008 of 31 July 2008 amending Decision 2006/236/EC on special conditions governing fishery products imported from Indonesia and intended for human consumption

implemented the scheme for tuna vessels above 60GT. These vessels are required to complete a logbook detailing catches, and submit this to the DG Capture Fisheries of MMAF. The legal requirement for submission is at the point of landing or trans-shipment. On the basis of this submission, the DG Capture Fisheries issues the catch certificates on request. However not all catches which are certified are verified at the point of landing/transhipment. Vessels above 100GT are required to carry observers, and these therefore have 100% coverage. Catches on vessels between 60 and 100 GT are subject to verification by inspectors is on a sample basis only. DG Capture Fisheries claims that since there are no individual quotas at vessel level, there is no incentive to under-declare catches and is confident regarding the validity of the declarations.

CITES certification

Indonesia has a large number of terrestrial and marine fauna and flora subject to Appendix 1 and 2 of CITES. In the case of marine species there are a two species of seahorse, several of giant clam, and a number of elasmobranches (the sawtooth sharks, the whale shark and the Indonesian coelacanth.

Formally, under the terms of Law No. 5 of 1990 (on Conservation of Nature) and associated regulations, the Management Authority for all CITES listed species is the Directorate General of Forest Protection and Nature Conservation of the Ministry of Forestry. However, Law no 31 of 2004 on Fisheries, has also nominated the MMAF as being generally responsible for managing the conservation of the marine environment. The DG for Conservation and Marine National Parks has therefore been established to meet this obligation, and a Memorandum of Understanding between the two Ministries was signed in 2007, the effect of which is that at present the MMAF is consulted on certification of marine species. The expectation is that in 2009, there will be a new Ministerial Decree, which will transfer the certification responsibility to the MMAF.

To this effect the DG for Conservation and Marine National Parks has established 7 technical units in strategic locations (with a significant presence in areas where for example ornamental fish harvesting is practiced). The DG has launched a project to significantly strengthen controls in this area, over and above the CITES requirements. This will include the introduction of a live fish certification scheme, applying the standards of the Marine Aquarium Council (MAC) with third party certification[22].

The Indonesian Institute of Sciences, Research Centre for Biology, is the nominated Scientific Authority, and this will remain so, with the responsibility for issuing the non-detriment findings (NDF) certificates and setting catch limits where appropriate.

The Ministry of Forestry provides an annual list to the Customs Department of the Ministry of Finance of species subject to certification requirements, and products in which they may be identified. In terms of procedures, the request for the CITES certificate is initiated by the exporter by the completion of the relevant forms. The Ministry of Forestry forwards the details to the Institute of Sciences, which comments on the sustainability or otherwise of the export consignment. in the case of a non-detriment finding, the certificate is issued and stamped by one of the authorised signatories in the Ministry of Forestry.

[22] The Marine Aquarium Council (MAC) is an international, not-for-profit organization with the objective to conserve coral reefs and other marine ecosystems by creating standards and certification for those engaged in the collection and care of ornamental marine life from reef to aquarium. Two relevant international standards promulgated and foreseen to be adopted on a pilot basis in Indonesia are the “Ecosystem and Fishery Management (EFM)” international Standard and the “Collection, Fishing and Handling (CFH)”

5.2.4 Status of traceability systems

A specific traceability requirement is expressed in the legislation (in Ministerial Decree KEP 01/MEN/2007 “Laying down the requirements for quality assurance and safety of fishery products during production processing and distribution”) and is mandated for all category A establishments, which are entitled to supply the EC market.

However definitive knowledge of the linkages between exports and specific fleet segments (whether defined by vessel, gear or location) is mitigated by the wide range of species included in exports, the different gears used, and the complex export supply chains involving intermediate traders.

The traceability requirement has only been force for less than a year and it is not yet effectively implemented by industry, nor, until now enforced by the MMAF. In September 2005, the FVO mission was provided with a list of 104 fishing vessels considered to be compliant and delivering fishery products to the approved establishments. This is clearly not a full list and does not reflect the reality that many of the intermediate traders source their product from different segments fishermen.

The Competent Authority recognises the limited implementation of the traceability requirement, and expects to address this in future, with a view to strengthening sanitary controls over the entire supply chain. However, this is an extremely difficult task, due to the complexity of the supply chain. The possibility of a pilot programme to establish full traceability in one province is being considered.

The only sector which is significantly different is the tuna long line sector. The sensitivity of the product and the reliance on fresh air freight requires rapid handling and demands shorter supply chains. A much larger proportion of product is derived from the semi-industrial tuna long line sector. Generally the fishing vessels are either owned by the export processor, or contracted to supply the exporter under annual arrangements. The supplying companies and supplying vessels are therefore generally known. Even where fish is transhipped at sea from long liners to a carrier vessel, which is a common practice in the small and medium long line vessels, the carrier vessel maintains separation of catches from different supplying vessels, to allow weighing onshore and payment according to catch.

One tuna exporting company supplying the EC visited by the consultants was working with 33 of its own vessels, 20 of which were approved for EC market, and was buying fish from a supply network of 139 vessels (currently about 12 vessels were supplying). Each vessel had a supplier code, and this was recorded at product reception, this ensuring that supplying vessel could be identified for each export consignment. However not all the tuna for export is derived from the long line segment. The enterprise also operated four collector vessels purchasing tuna from a fleet of over 200 small pole and line/handline fishers in the Banda sea. With this supply chain, although the supplier list is known, in relation to a specific export consignment, it was only possible to identify the collector vessel, not the individual fisher. The fresh tuna supply therefore appears to be one segment where small scale fishers play a significant part in supplies to the EC.

In recent years, about EUR 2 million/yr of frozen tuna has also been imported for processing and re-export, with potential for supply to the EC market. The imports are either destined for cannery production, or for the frozen/portion market. In the case of cannery supplies, the origin is the SW Pacific tuna fishery and the imports are derived via the main SE Asia trading houses (Mitsui, Mitsubishi etc). These products are subject to both mandatory and voluntary certification schemes as a condition of access to the US market (see section on supplies to the Thai cannery sector for a more complete description). Especially in relation to the Earth Island Institute certification scheme associated with the use of the dolphin friendly logo, the levels of traceability and supply chain integrity are good.

For other frozen tuna products, imported species are usually yellowfin tuna, and some albacore. The latter includes some MSC certified albacore of USA origin, imported and packed for EU supermarket buyers. Here the product is certified not only as sustainably caught but also the supply chain is certified as meeting the MSC Chain of custody standard[23]. This standard sets the requirements for traceability at each stage of the supply chain. Thus the import consignments are imported with documentation which identifies the supplying vessel (each container contains only product from one vessel) and this is maintained separate from other consignments throughout the storage and processing and subsequent export steps. Data on vessel origin is communicated to the EC buyers. The case illustrates a useful example of a vessel level traceability system applied by an Indonesian operator in order to comply to with a voluntary standard.

5.2.5 Type and volume of certification required for implementation of the Regulation

There are two activities which the MMAF will need to undertake in relation to the implementation of the new regulation:

Activity 1: Validation of catch certificates from Indonesian vessels landing in Indonesia and in other third countries

Indonesia will be required to validate EC catch certificates for domestic landings and for landings in other third countries. With regard to domestic landings, central government is responsible for licensing and control of vessels >30GT. This accounts for about 4500-5000 vessels. However, some 220,000 vessels operate under the jurisdiction of provincial governments. Many are small vessels.

An estimated 10,000 Indonesian flagged long line vessels operate in the region. A significant, but unknown, proportion land outside Indonesia, in Sri Lanka, Seychelles, Mauritius, South Africa and Thailand. There is no information about the distribution of landings but at least some of this product is consigned to the EC supermarket trade. To meet the requirements for catch certification in relation to these vessels, Indonesia will need to receive information from port state control activities in the country of landing, in order to provide the necessary validation of catch certificates.

Activity 2: Provision of statements in relation to export and re-export of processed fishery products (indirect importation to the EC)

Indonesia's processing industry is substantially dependent on landings by its own vessels in Indonesia. Imports provide a relatively limited proportion of supplies into processing (their value is only about 2% of exports) and only small quantities are processed for re-export. However imports are linked to the EC exports in specific sectors such as canned and frozen tuna. Where products are processed the Competent Authority will need a system to endorse a processor's statement of the exact processing steps and quantities.

Since the change in the law in 2007, prohibiting the licensing of vessels carrying flags other than that of Indonesia, all foreign owned vessels operating in the EEZ have either departed or re-flagged. The consequence is that there are no landings by foreign flagged vessels in Indonesia. There is no foreseeable need for Indonesia to provide port state controls in response to requests by flag states.

[23] The MSC Chain of Custody standard for seafood traceability, Version II, MSC August 2005, http://www.msc.org/about-us/standards/msc-chain-of-custody-standard

The level of fleet dependency on the EC market is rather limited. Consultants estimates, based on data from the MMAF suggests that some 450,472 gears are involved in capture of fishery products supplied which implies about 225,000 vessels. Clearly not all of these will be involved in EC supply chain. Given that trade with the EC accounts for only 2-3% of production, it is likely that the number of vessels actually involved in supplying this marketing chain on a regular basis is much smaller.

The only fleet sectors which appear to be specifically linked to the EC market are the tuna long line and the shrimp sectors, which will therefore most likely be the priority sectors for the introduction of the catch certification requirements. In September 2005, the FVO mission was provided with a list of 104 fishing vessels considered to be compliant and delivering fishery products to the approved establishments. This is clearly not a full list of all supplying vessels, but it could provide a starting point for implementation of the catch certification in compliance with Regulation 1005/2008.

In the case of the tuna long line sector, almost all longliners are involved in the supply to the EC market chain, although this has been rather limited in recent years due to the Commission's introduction of the safeguard measures, requiring all consignments to be tested for histamine at importers costs. In national waters, typically, the product is transhipped from the fishing grounds to shore by a carrier vessel. The vessels work closely with specific exporters on an annual contract. Product is sorted with premium grades destined for the Japanese and US sushi markets, and secondary grades for the EC market. This would suggest that some 9,000 vessels could potentially be involved in supplying this market, plus perhaps several hundred more which operate in international waters and as joint ventures with other third countries.

In the case of shrimp, marine capture fisheries account for 44% of production. A small number of freezer trawlers are approved for the EC, but product for this market is also sourced from the domestic fleet of about 6,500 ice vessels. All land product in Indonesia, and are destined for export markets, including the EC. These landings will need to be covered by the catch certification system, which will need to distinguish between shrimp of the same species from aquaculture and capture fisheries (in particular *P.monodon).*

Given these dimensions, catch certification of tuna and shrimp sectors is likely to involve up to 15,500 vessels. Assuming one landing per week, this would involve perhaps 775,000 landing events per year which will need to be certified (Activity 1), with up to one third of these landings (from the larger longliners) made in other third countries. Under the present fishing, landing and trading patterns the provision of port state controls (foreign vessels) and validation of Article 14 and Annex 4 statements (Activity 2) are not likely to be in great demand, and can therefore be considered a lower priority for the Government of Indonesia in responding to the EC catch certification requirements.

5.2.6 Technical and administrative capacity for catch certification

There is a body of fisheries inspectors, with capacity to monitor landings made in Indonesia. However the legal and technical basis for Indonesia's MCS system is focused only on larger vessels operating within the EEZ. At present only vessels above 30GT fall within the control of the central government, although about half of these carry satellite VMS. However functionality of the system is reported to be limited due to technical problems. Therefore, in terms of monitoring the activities and landings of the Indonesian fleet, there is only limited capacity. There will be a need for the MMAF to strengthen the monitoring of landings by vessels over 30 GT by inspectors in the fishing ports. Implementation of the planned programme of VMS to all vessels within its jurisdiction will further support this process. In addition, there will be a need to ensure that provincial governments apply the same level of controls to vessels under 30GT when they supply the EC market chain. In reality, this is a much more difficult task, given the limited degree of central government control in the decentralised government model applied, and the lack of local government funding for fisheries control activities. However, given the lack of quantitative links between small scale fleet segments and the EC market, the extent of this task cannot be determined at present.

The Government of Indonesia should, in time, be able to meet the requirements of Regulation 1005/2008 for validation of catch certificates in relation to larger vessels which operate in EEZ, and land in Indonesia, subject to the appropriate development of inspection capacity for validation of catch certificates. Subject to these conditions being met, it is feasible, to meet in full the requirements of the regulation in relation to vessels above 30GT.

However, it is difficult to see how the GoI can implement the EC catch regulation in respect of validation of catch certificates from smaller Indonesian vessels landing in Indonesia and in other third countries without a significant adjustment of management capacities at the level of provincial governments. The implementation of Activity 1 (validation of catch certification) to Indonesian vessels <30GT is therefore unlikely to be feasible in the medium term.

5.2.7 Official checks on origin

To meet the requirements of the regulation the Competent Authority will need to be in a position to positively confirm a linkage between a catch certificate and a specific consignment of fishery products which it accompanies.

For most fishery products the supply chain is relatively complex and frequently involves intermediate traders purchasing from large numbers of relatively small fishing vessels. The only exception is in relation to the tuna sector, where there are shorter distribution chains, and concentrated ownership of long line vessels, creating improved conditions for introduction of traceability systems.

Whilst there is a legal requirement that exported fishery products are produced under conditions of full traceability, this is a recent regulation, and its implementation and enforcement have not been substantially addressed by the industry nor the competent authority. Only in the tuna sector is there a significant level of traceability, Most of the EC suppliers have been required to implement these systems, as a result of their subscription to private certification systems. Several enterprises possess certification under SGS HACCP, British Retail Consortium, or Marine Stewardship Council.

5.2.8 Indonesia Needs assessment

Indonesia's main needs relate to the validation of catch certificates in respect of Indonesian vessels landing in Indonesia and other third countries. In the medium term Indonesia only has capacity to implement the EC catch certification in relation to larger vessels under jurisdiction of central government. In order to achieve this, and given the relative limitations of the legal framework for management of the national flagged vessels, the Government of Indonesia will need to consider a significant strengthening of the control framework in order to respond fully to the EC's catch certification requirements. This revision will need to address the following activities:

Activities	Means required
Adaptation of the legal framework	i) defining the system for catch certification and validation ii) in the longer term consider revising elements of the fisheries jurisdiction between central and provincial government
Exchange of information between Authorities	Strengthen linkages on fisheries on fisheries controls between central and local government.
Strengthening controls upon landings	Extend and strengthen the fisheries MCS system, with additional inspection staff to validate catch certificates at national ports. Introduction of landing controls and database

5.2.9 Expected impacts of catch certification on illegal fishing

Indonesian vessels are involved in IUU fishing, especially the long line sector operating outside the EEZ. Indonesia also suffers extensive illegal fishing by other countries vessels inside its EEZ. More details are given in Annex 12

The effective implementation of the catch certification system in Indonesia presents considerable logistical, resource, political and financial challenges, not least of which is the difficulties presented by the decentralised fisheries management system. None of these issues are likely to be overcome in the short term. Nevertheless, it is foreseeable that progress can be made with catch certification respect to vessels >30GT under the control of MMAF, with some associated benefits in reduction of illegal fishing. This does mean that a short term impact on illegal fishing by smaller scale vessels is less likely. The impacts also have to be considered in the context of the sector dependency on the EC which is the lowest of all countries studied (c.15%). Experience with sanitary safeguard measures has demonstrated the sector's flexibility in being able to direct product to alternative markets when the regulatory environment for the EU market becomes too tough. There is a possibility that the catch certification requirement may cause a further diversion of supplies to non-EU markets. This is most likely to impact on the Indonesia long line sector, which is one of the segments perhaps most implicated in IUU fishing.

However, the impacts should also take into account the fact that Indonesia is one of the few countries in this study which should be considered as a major victim of IUU fishing, with significant levels of illegal fishing in its EEZ by foreign flagged vessels. Catch certification activities of the flag states will prevent these products from being exported to the EC market, and therefore reduce the profitability of the illegal activity. In this respect the regulation is therefore likely to have a positive impact and deliver tangible benefits to Indonesia.

5.3 Thailand

5.3.1 Fishery sector profile

Thailand has an extensive fishery sector, with significant small scale and coastal fisheries, a distant water fleet, significant production from inland fisheries and from aquaculture. It has a highly developed processing industry, and ranks as the third largest fish exporter in the world (with exports of US$ 4.0 billion in 2004, after China and Norway). It is also a major importer of raw materials for processing and re-export.

Total fish production in 2006 was about 3.3 million tonnes, out of which about 25% is derived from aquaculture. Marine capture fisheries accounts for about 2.5 million tonnes, with crustacean and molluscs making up 123,000 and 176,000 tonnes respectively; shrimp and cephalopods are the main targets in these categories. Thailand has always maintained an active distant water fleet operating in international waters and in the EEZ of other countries. The fisheries are represented by a wide diversity of species; in total, 122 commercial species are identified. Aquaculture production of shrimp in 2007 was estimated at 494,000 tonnes. There are 16,025 registered farms, of which about 8,500 are estimated to be active.

Marine catches peaked in 1995 at 2.8 million tonnes, but have remained relatively constant since that time. The total number of fishing boat registered with the Marine Department in 2007 was 12,238. Of these 11,777 vessels were authorised to operate in Thai waters, and some 461 vessels authorised to operate in distant water fisheries. However, the Marine Department does not register vessels with no motor. Many small powered craft also operate without formal registration, and this includes large numbers of artisanal vessels, typically operating with long tail (outboard) motors.

The Department of Fisheries issues licences for certain fishing gears. Assuming only one gear is licensed to each vessel, this suggests that total number of fishing vessels was 51,000 vessels in 2008, with more than half being vessels operating entangling gears, about 20% being trawlers or push netters. Note that there is no licence requirement for longline gear, which is excluded from this data. A foreign fishing licence is however required for vessels to operate outside the EEZ.

Thailand has always maintained an active distant water fleet as an important element of the supplies of raw material to the export processing industry. The fleet operates through a combination of bilateral agreements for direct access, and joint venture/chartering arrangements. Five main operating regions are identified: Indonesia; SE Asia; India and Bangladesh, Middle East and High seas/Indian ocean. Bilateral access agreements are in place with Indonesia and Myanmar

The vessels operating in the S. and SE Asian region are coastal vessels, mainly purse seiners and trawlers. In more distant regions the vessels are mainly freezer trawlers, and a significant proportion of the catch is frozen onboard and transhipped in the host country to return to Thailand for processing. However catches made in neighbouring countries may be landed in fresh form, either directly into Thailand (e.g. from Myanmar waters) or landed and transhipped to Thailand (e.g. catches made in Indonesian waters). Where product is transhipped back to Thailand, membership of the Overseas Fishing Association is required in order to qualify for tax exemptions on "import" of fishery products to Thailand (irrespective of flag of catching vessel).

In terms of high seas operations, there are 6 vessels operating legally. Two large long liners targeting tuna and large pelagic fish for the Japanese market operate in international waters of the IOTC region, with a base in Phuket. Most recently, Thai Union, the largest canning company in Thailand has invested (via its subsidiary Siam Fishing) in the purchase of four purse seiners to fish for tuna in the IOTC area targeting yellowfin and skipjack tunas for cannery supplies. The vessels also operate in the Seychelles and Somali EEZs under purchased licences.

Thailand has an extensive fish processing and distribution sector. There are more than 368 fish processing factories registered with the DOF. The seafood processing sector employs an estimated 168,000 people. Some 280 establishments are approved for supply to the EC market. The remainder supply national, regional and other international markets. Many of the processing establishments are multi-product. About 124 of the establishments are registered for the processing of shrimp (both farmed and capture sources), 98 for cephalopod and 29 for tuna processing. There are a number of surimi process plants which process kamaboko and surimi, based on small low-value demersal fish such as threadfin breams and lizard fish. There are fourteen coastal marketing centres which act as major markets of first or second sale. There are about 58 fish canneries, of which 20 are tuna canneries (18 are in operation). Global inputs to tuna canning are of the order 750,000 tonnes/year, of which about 10% is from the Thai EEZ fisheries. The tuna sector therefore is highly dependent on imports, of which 90% are derived from the SW Pacific and 10% from the Indian Ocean.

Exports of fishery products from Thailand in 2007 were valued at just under EUR4 billion, of which the EC accounted for some 30%. As has been noted Thailand ranks third in the global exporters of fishery products. The other main export markets are Japan and the USA. The USA accounts for almost half of the exports of shrimp, whilst the EC accounts for 10-15%. Canned tuna is exported to many countries and regions. About 20% of the exports of canned tuna are to the EC, and about 20% to the USA.

Thailand is a major importer of fishery products, with imports of EUR1.5 billion during 2008 (January to November). The majority of these were tuna (766,000 tonnes valued at EUR945 million). However other major imports include frozen marine fish, cephalopods and shrimp.

Fishery imports of 1.4 million tonnes therefore supplement the 3.3 million tonnes of national production, and account for some overall 30% of the potential supplies. The consultant's estimates of export dependency on imports are shown in Table 5. In fact the export sector is likely to be more dependent on imports than suggested, since a disproportionate amount of domestic production from small scale fisheries is consumed directly by the domestic market and most of the imports represent higher value species as raw material for re-export.

Table 5: Estimates of export dependency on imports in different fish processing sectors

Sector	Domestic Production ('000 tonnes)	Imports ('000 tonnes)	Total supplies ('000 tonnes)	Dependency on imports (%)
Tuna	75.0	766.6	841	91
Shrimp	570.2	17.6	588	3
Marine fish	147.5	546.7	694	79
Cephalopods	147.5	39.3	187	21

Source: Consultants estimates based on Tables 8 and 9, Annex 6

Some exported categories (for example frozen salmon and coldwater shrimp) are entirely dependent on imported raw material. Other products are imported to a lesser extent (tropical shrimp, cephalopods) but still representing very significant trade flows (for example EUR42 million in shrimp and EUR53 million in squid). In effect, in some sectors, Thailand functions as a value added contract processing platform for raw material produced by other nations. This exemplified by the recent rise of Thailand as a supplier (to the EC and other nations) of processed products based on farmed salmon and Arctic shrimp.

Sources of imports are various. The top ten sources of tuna for canning are Taiwan, Vanuatu, Japan, Republic of Korea, Indonesia, Papua New Guinea, United States of America, China, Micronesia and Marshall Islands. A total of 42 different countries supplied Thai canneries with raw materials in 2008. Similarly 36 different countries supplied Thailand with shrimp (the main ones being Canada, Greenland, United Kingdom, Malaysia, Mozambique, Argentina, Myanmar, Indonesia, Saudi Arabia and Australia). An understanding of the precise relationship between imports and export markets, and the associated trade flows is beyond the scope of this study. However it is clear that the Thai fish processing and export industry has a high level of dependency on imported raw material, especially in the tuna and the marine fish sectors. This, along with the wide range of sources and import distribution channels clearly has implications for the implementation of the IUU catch certification scheme in this country.

5.3.2 Fisheries management and controls

Fisheries management system

The Department of Fisheries (DOF) under the Ministry of Agriculture and Cooperatives is the lead agency responsible for fisheries in Thailand. The key legislation governing fisheries is the Fisheries Act B.E. 2490 (1947) which was revised in 1953 and 1985, and has been in the process of a further revision since 2006. The Act Governing the Right to Fish in Thai Waters in B.E. 2482 (1939), and the Act Organizing the Activities of the Fish Market B.E. 2496 also remain in force. This legislation sets out the institutional responsibilities for fisheries management and the basic requirements for licensing of fishing gears, enforcement and control.

There is no specific requirement for licensing of fishing vessels for the purposes of fishing. Under the Fisheries Act of 1947, the Department of Fisheries is responsible for issuing licences for controlled fishing gears. This include trawl nets, push nets, purse seines, gill nets. The licenses are issued by DOF District Office (102 districts along the coast line). Certain types of gear (trawl nets, push net and anchovy nets) have a limit to the numbers of licences which may be issued, this being the principal means of fisheries management. Policy is that for these gears, licences will only be issued to existing licence holders or direct members of their family (i.e. renewals only, with no new licences). There are a number of technical measures in place

for each gear (for example governing restricted areas, mesh sizes and seasonal bans), which provide the detailed basis for fisheries control.

Following a growing awareness of the extensive overfishing of the national fish stocks, the DoF has promoted the Master Plan for Marine Fisheries Management of Thailand. The Master Plan will be commissioned for a period of 10 years beginning 2009. The objective is to make fisheries sustainable, based on co-management principles.

Vessel registration

Vessel registration is the responsibility of the Marine Department, and governed by the Thai Waters Act, and the Thai Vessels Act. The Marine Department is also responsible for maritime transport, maritime infrastructure development and navigation, harbour masters, monitoring & control of ships and particularly safety of ships & navigation, seafarers education & training, certification and the marine environment. The Department has a total of 1,891 employees, with a head office in Bangkok, and 7 regional offices in key ports. Some of the divisions relevant to fisheries and fishing vessels are the Ship Standard Bureau, Marine Safety and Environment Bureau and the Ship Registration Division.

The Ship Registration Division is responsible for issuing and renewing of registration and annual operating licence for motor-ships and non motor-ships in accordance with the Navigation in Thai Waters Act and Thai Vessels Act. The ship registration certificate is issued under the Thai Vessels Act (B.E. 2481), provides permission to “trade in Thai Waters” and is a legal requirement for all motorised fishing vessels of any size and un-motorised fishing vessels above 6 GRT. Vessel registration under Thai law is issued to either:

- an individual (natural person) who must be of Thai Nationality, or to a
- business entity established under Thai legislation, in which case at least 70% of shareholders must be of Thai nationality (for domestic operation) or at least 50% of shareholders must be of Thai nationality (for international operation)

The annual ship operating license is issued under The Navigation in Thai Waters Act (B.E. 2456) and is a requirement for any vessel used in Thai waters, including fishing vessels. The condition of issue is that the vessel must be in possession of a valid certificate of survey establishing the safety of the vessel construction and equipment. Depending on capacity the vessel is then authorised for use in specified maritime zones. The period of validity is 12 months. Thus the registration is linked specifically to safety at sea criteria and there are no conditions placed on registration of the fishing vessel which relate to the management of that vessel in terms of its specific fisheries activities.

MCS system

The Department of Fisheries, of the Ministry of Agriculture and Cooperatives is authorized to enforce the Fisheries Act of 1947. The Fisheries Administration and Management Bureau is responsible for MCS, and operates a national network of patrol bases and radio stations. In marine waters, the DoF directly operates twenty one 18m patrol vessels and 72 smaller outboard vessels (6m). There are 23 Fishing patrol bases and a further 15 coastal fisheries radio stations under the direct control of the DoF. In addition, each of the 102 district offices of the DoF in coastal areas also has at least one staff member from the Fisheries Administration and Management Bureau. In total there are 408 inspection staff from the bureau dedicated to enforcement and control.

About 2,000 fisheries patrols were conducted during January-November 2008. The main aim of the control and enforcement is to detect and punish prohibited fishing activities. These included illegal fishing methods (e.g. electricity, dynamite), fishing in prohibited areas and during the spawning season, fishing of endangered and prohibited species, use of prohibited or unlicensed fishing gear. There is one pilot project to introduce community based management, which includes monitoring of compliance with fisheries regulations.

The Royal Thai Navy and the Marine Police are also mandated under the Fisheries Law to undertake fisheries protection activities. The respective roles are governed by protocols which

define certain areas of responsibility. Department of Fisheries participates in a Coordinating Committee which plans coordination. However DoF does not participate in any of the resulting enforcement activities. The DoF has no information regarding the nature and extent of MCS activities undertaken, nor of the outcomes in terms of numbers of non-compliances detected.

It is notable that there is no requirement in Thai law for satellite vessel monitoring systems to be installed in any vessels for the purposes of fisheries management and control. Some vessels do operate VMS, either as a means of internal monitoring by their owners, or as a requirement of their licence to fish in the zone of another country (e.g. the four purse seiners operating in the Indian Ocean operate VMS as a condition of their licence to fish in the Seychelles EEZ). However, this data is not available to the DoF. There is no observer programme.

The DoF is supporting a pilot study for a vessel positioning systems (VPS) based on GPS data transmitted to a monitoring station via the mobile phone network. At present the system is installed in 5 vessels, a further 45 will be added in 2009 prior to evaluation for extension to the remainder of the fleet.

The Fish Trade Control Group and its port inspection service (the Fish Inspection Office) Unit provides centralised border inspection services in relation to elements of the Fisheries Act (1947), the Wildlife Reservation and Protection Act (1992) and the Food Act (1956). It provides the port level inspection and control of imports and exports, and checks that the relevant certification (in relation to health certificates, animal diseases, CITES requirements, conservation and management) are properly implemented before clearance of a specific consignment for export or import. The Fish Inspection office staffs 22 offices around the country (5 international Airports, 5 sea ports and 12 land borders). The Unit works alongside the Customs Department and the Maritime Department in providing a unified clearance service at the border inspection posts. With regard to imports the role of the unit is to issue import and export permits (before actual consignment of goods), and to undertake documentary, physical or laboratory checks as required at the moment of export.

5.3.3 Export controls for fishery products

Certification of origin

The issue of Certificates of origin for Thailand-EC trade in fishery products is an important matter, since Thailand benefits for a number of tariff preferences in this trade.

The procedures and responsibilities with regard to certification of origin are defined in the Controlling Importation and Exportation of Goods Act of 1979. The detailed procedures are set out in the Ministerial Notification of Issuance of Rules of Origin certificates in accordance with International Trade Practices (No.48 of 2005). Thailand has not ratified the Kyoto Convention on Customs procedures, and has not therefore adopted the Annex K on procedures regarding certification of Origin. The institutions that issue CoOs in Thailand are the Thai Chamber of Commerce, Provincial Chambers of Commerce, and the Foreign Trade Department of the Ministry of Commerce Federation of Thai Industries. However only the Foreign Trade Department of the Ministry of Commerce is authorized to issue preferential COs. A two stage procedure is employed.

The first is a pre-qualification step for the exporter. The pre-qualification is based on meeting general conditions, which vary depending on the type of product to be exported. Typically, the Foreign Trade Department, Bureau of Administration will a) review the legal status of the basis and its compliance with accounting/tax and social security requirements b) assess the applicability of GSP rules of origin to the business model employed. Where appropriate this will include and investigation of the costs of products (if for example the concept of “sufficient processing” is applicable). The pre-qualification lasts for a two year period.

The second stage is with regard to the issue of individual certificates of origin. Applications for Form A (GSP certification of origin) are made by the exporter on line to the Bureau of Foreign Trade Services. Additional documents to be submitted are the Bill of Lading (or Airway Bill), original invoice, and any original certificate of origin (for example if the raw material was

imported). Before issue, cross checks are made on the names of the exporter/consignee and on the applicant's signature to ensure that the application complies with the pre-qualification criteria. CoOs may be issued after shipment, and are then couriered to the consignee for clearance at the port of destination.

The Bureau of Administration has a team of inspectors who undertake the pre-qualification checks, and also undertake any investigations with regard to requests for verifications received from competent authorities in the export country. To this end they have powers of entry and seizure under the Controlling Importation and Exportation of Goods Act.

The Department of Foreign Trade issues more than 100 preferential CoOs per day for fishery products (to all destinations). The numbers of certificates of origin issued for fishery products consigned to the EC is shown in Table 6. This averages about 42 consignments per day. Almost half of these are reported to be in relation to shrimp products.

The Foreign Trade Department tracks the use of imported raw material when it is declared by the exporter in order to obtain a tariff preference. Where a tariff preference for an imported fishery product is to be claimed by the exporter, then he must complete an additional declaration of the origin of the product and submit the CoO issued by the competent authority in the originating country. Re-exportation provides a basis for the duty free import of raw materials, and it is therefore usually in the interests of the exporter to declare imported raw material. Providing that the documents do not demonstrate any inconsistency the, re-exportation is allowed and the import duty exemption certificate is issued. However, the export control system does not seek to identify the source of all products exported, and where Thai origin is claimed, unless there is a subsequent request for verification, there is no additional check on origins.

Table 6: Numbers of Certificates of Origin issued for fishery products destined to the EC

HS Code	Net wt. of product (tonnes)	Value of product (USD)	No. of certificates*
03	75,005	335,904	4,622
1604	31,292	96,440	1,969
1605	25,979	178,476	4,196
Total	132,276	610,82	10,787

*GSP Form A issued in 2008 (January-November)
Source: Foreign Trade Department, Ministry of Commerce

Sanitary certification

Thailand is authorised to supply the EC with fishery products, since it is one of the countries listed under Decision 2006/766/EC of 6 November 2006 "*as regards the list of third countries and territories from which imports of fishery products in any form for human consumption are permitted*". Thailand has 289 approved processing plants (including 141 which are used for farmed aquaculture products).

Thailand has undergone several inspections by the FVP of DG SANCO, most recently in July 2005[24]. The mission found some deficiencies in wholesale markets and in processing establishments, and in the monitoring of biotoxins. Otherwise the situation was found to be "rather satisfactory".

[24] FINAL REPORT of a mission carried out in Thailand from 11 to 20 July 2005 assessing the conditions of production of live fish, fisheries products and bivalve molluscs intended for export to the European Union, Food and veterinary Office, DG SANCO, 7738/2005.

Following a Cabinet Resolution of 1994, the nominated Competent Authority for the sanitary certification of fishery products is the Department of Fisheries. Additional import controls of tuna and shrimp, control and inspect all fish processing for export were introduced by a Cabinet Decision of 2004. The sanitary controls are exercised by the Fish Inspection and Quality Control Division (FIQCD). The control system is defined under the Fisheries Act (1947) which requires the registration of fishery businesses, and the Food Act (1979), which authorizes officers to enter establishments and to take samples and the Import and Export Control Act (1979) which requires certification for imported and exported fishery products for export under specific conditions.

The FIQCD operates 4 central laboratories (1 National at Bangkok and 3 Regional at Sonkhla, Samutsakorn and Surathani) which provide the basis for inspection of the fishing vessels, establishments and the testing laboratory facilities. There are about 300 staff in the division, of which about 45 are inspectors who implement controls in establishments. In addition to inspection and laboratory staff, there are sections which deal with the design of the monitoring programmes for bivalve molluscs, monitoring veterinary drug residues and specifically concerned with residue controls in imported shrimp products. However, implementation of the farm monitoring programme is delegated to the Coastal Fisheries Research and Development Bureau, and the monitoring of bivalve molluscs production (marine biotoxin levels, microbiological qualify of harvest waters, and phytoplankton monitoring) is undertaken by the Marine Fisheries Research and Development Bureau. Inspections of fishing vessels and inspections of landing sites are delegated to the Fisheries Officers of the Fisheries Administration and Management Bureau.

Technical conditions and product standards are defined for different sectors of the industry, for general standards of Good Manufacturing Practice and for HACCP systems. All establishments must possess an operating licence from the Ministry of Health, which certifies the compliance with national hygiene conditions, including water supply conditions and staff health. Each establishment is rated in accordance with the degree of compliance. The Rating system recognises 5 categories: levels 1, 2, 3, 4 and Fail. The Product Surveillance Program is risk-based and sets the frequency and types of inspection and the level of sampling for export certification. Level 1 establishments are required to have samples taken every 3 months; level 2 every 3 months and level 3 and 4 for every shipment.

When sampling is not required, the certificate is issued following a check on the level of the establishment, latest inspection results and any other data. Where the product is subject to a movement document (in the case of farmed shrimp and bivalve molluscs see section 5.3.4) the final movement document must be submitted by the exporter with the application for certification. This is cross checked with the entry on the database to ensure that a) the origin is as declared and b) intermediate handling/processing has taken place in properly registered and approved establishments. When sampling of fishery products is required, an inspector is assigned to the task. Sampling exercise will normally include a review of the results of own checks undertaken, and may include a check on raw material reception records and provenance. Products are subject to the relevant physical, microbiological and chemical analyses in the laboratory, and the certificate is issued on the basis of satisfactory test results.

The DoF has sought to move as much of the documentary aspects of the process as possible on-line. Most enterprises are now able to prepare and submit applications for health certification online. This is received by the relevant DoF office and reviewed by the officer. Where there checks are documentary, the certificate is also issued online to the exporter, usually within 24 hours. Where sampling is required, the order for sampling is issued within 24 hours, but testing may take up to one week. Certificates for canned products usually take in excess of 3 weeks due to the length of time for microbiological testing. Negative tests result in refusal to issue the certificate, and will launch an investigation into the cause. Most of the problems experienced are in relation to residues of illegal veterinary medicines in farmed shrimp, in which case the offending farm is identified and the Good Agricultural Practices certificate (which is a requirement of the operating permit) is suspended pending resolution of the problem. The farm is therefore prevented from supplying the export chain.

Sanitary certificates are issued only at the Bangkok and Sonkhla offices. About 30 staff are employed full time on export certification procedures. The numbers of sanitary certificates issued is shown in Table 7. Note that this only represents the number of consignments in relation to the non-USA destinations, since consignments to the USA do not require a sanitary certificate and these are only issued on the request of the consignor.

The DoF has recognised the importance of import controls, from the point of view of ensuring that imported product meets the food safety requirements of the export markets. A number of historical problems with unauthorised residues in exported shrimp were identified as being derived from poor controls in other countries supplying Thailand. As a result since 2003, the DoF has used powers under the Food Act to implement specific import controls on shrimp. The requirement is for sampling of all consignments of imports from high risk countries, and random sampling of product from others. However, the consultancy mission was not able to establish whether there are any systematic official checks in place regarding the health conditions status of other imported fish supplies, which are used for products which are subsequently exported to the EC. Specifically there appears to be no controls to ensure that fishery products from countries which are not authorised to supply the EU are prevented from entering the EC supply chain. An example is Vanuatu, which supplied about 9% of the tuna imported by Thailand in 2008. Vanuatu is not one of the third countries which is listed under Decision 2006/766/EC of 6 November 2006. No official steps are taken to ensure this does not enter cans consigned to the EU.

Table 7: No of sanitary certificates issued for exported fishery products

Product/destination in 2007	
EU	28,720
Japan	22,904
Australia-New Zealand	11,537
Korea	6,234
China/Hong Kong	3,824
USA	2,818
Other	18,852

Source: Department of Fisheries

RFMO Catch Certification

Thailand operates two systems of catch certification, both in relation to tuna products. One is in relation to Thailand's obligations as a member of the IOTC. The other is in relation to the US mandatory and voluntary measures for dolphin conservation.

IOTC Statistical Document for Bigeye tuna

The IOTC introduced a Bigeye Tuna Statistical Document Programme (IOTC Resolution 01/06; amended by Resolution 03/03[25]). This seeks to reduce the uncertainty on the catch of bigeye tuna in the Indian Ocean as well as a requirement for all imports of bigeye tuna to Member

[25] Resolution 03/03 amends the forms of the certification scheme in order to take into account vessel length.

countries (and cooperating non-Parties) to be accompanied by a Statistical Document. Thailand is a member of IOTC and is therefore obliged to comply with the IOTC statistical documentation scheme in relation to bigeye tuna trade. In Thailand, the responsibility for the issue of the BET Statistical Document lies with the Marine Fisheries Research and Development Bureau. Applicants for catch certificates and for re-export certificates submit their requests to the Bureau. A cross check is made with the fishing gear licences and any catch documentation submitted by the vessel. Providing that there is no inconsistency in the data, the certificate is issued. In the case of the re-export of imported raw material, the MFRDB maintains copies of the original catch statistical documents submitted on import, and cross checks that this has been satisfactorily completed. Copies of documents issued are submitted periodically to IOTC for compilation and cross checking between members. Bigeye tuna caught by purse seiners and baitboats and destined principally for canneries are not subject to this statistical document requirement. The certification is thus aimed specifically at longline fishing for bigeye tuna for export, Japan being the principal market.

US Dolphin protection measures

The USA implemented regulations which prohibit trade which undermines measures designed to dolphins from incidental capture in tuna fisheries, as set out in the Marine Mammal Protection Act (MMPA), Dolphin Protection Consumer Information Act (DPCIA), and International Dolphin Conservation Program Act (IDCPA).

Since May 2005, US regulations[26] have specified conditions for the importation of tunas of the genus Thunnus and for skipjack (*Katsuwonus pelamis*). The regulations set out a prohibition on the import of yellowfin and skipjack tuna and their products harvested by purse seine in the eastern tropical Pacific Ocean (by certain nations). Consignments imported into the USA must be accompanied by NOAA Form 370 (Fisheries Certificate of Origin). This certificate must be endorsed by a competent authority of the exporting country indicating that the tuna was not harvested by unlawful gears in contravention of the Acts. In Thailand this is undertaken by the Marine Fisheries Research and Development Bureau on submission of the part-completed form by the exporter. The importer must submit a copy of this (along with associated evidence) to the tuna tracking and verification program in either printed or electronic format. The applicant must submit a catch certificate or other documentation which identifies the catching vessels. DoF then checks that the catch location, vessel and method is compliant with the requirements, and that the vessel is not listed by the IATTC as undertaking purse seining in the Eastern Tropical Pacific. Providing these conditions are met the certificate is validated. The National Marine Fisheries Service's (NMFS) implements the import checks on arrival in the USA. Failure to comply with the requirements and deadlines of the import monitoring programs is a violation of federal law.

Earth Island Institute Marine Mammal Programme

The Earth Island Institute, a non-profit, non-governmental conservation organization based in the U.S sponsors the International Marine Mammal Project (IMMP)[27]. This provides for certification of canned tuna as “dolphin friendly” when the fishing operations meet certain conditions. These include:

- No intentional chasing, netting or encirclement of dolphins
- No use of drift gill nets to catch tuna.
- No accidental killing or serious injury to any dolphins during net sets.
- No mixing of dolphin-safe and dolphin-deadly tuna in individual boat wells
- Purse seiners >400GT cooperating in Eastern Tropical Pacific Ocean (ETP) must have an independent observer on board

[26] These are set out in 50 CFR 216.24(f); 50 CFR Part 216, Subpart H; 50 CFR Part 300, Subpart M; and/or 50 CFR 635, Subpart D.
[27] more information is available at http://www.earthisland.org/immp/

To support the certification programme the EII has established a tuna monitoring program with a network of 12 staff monitors based in 7 countries around the world who observe operations at tuna canneries, offloading ports, and cold storage facilities, as well as on board fishing vessels and transhipment locations, to ensure that tuna supplies are compliant with the standard and with US legal requirements. They thus undertake *ad hoc* inspections of establishments in the consigning countries to validate the certification and traceability procedures. As a result of the EII programme, in Thailand, there are 34 tuna suppliers which are EII Approved Dolphin-Safe Tuna Processing Companies & Fishing Companies.

The certification requirements considerably exceed the minimum legal US requirements, especially in the form of on-the-spot verification of catching location, vessel and method and traceability checks, which employ the concept of "approved economic operators". This means that it is also likely that tuna operations which meet the EII standards for dolphin friendly tuna, will also be able to draw on the same approach in order to comply with the IUU catch certification requirements, without additional significant investment in control and information systems.

CITES certification

Thailand has been a signatory of CITES since 1983. Thailand is home to a number of marine species listed in the Appendices to CITES. These are several Appendix 1 species of sawfish (*Anoxypristis cuspidata, Pristis* spp) and Appendix 2 species of *Hippopus hippopus* (seahorse), several species of giant clam (*Tridacna* spp) and the whale shark (*Rhincodon typus).*

CITES requirements are codified into national law by the Wild Animal Protection and Reservation Act (WAPRA) of 1992, amended 2003, and associated regulations. This sets out the institutional framework and responsibilities, and describes the procedures to be followed. The overall management authority is the National Park, Wildlife and Plant Conservation Department. For marine species management authority for the issue of permits is delegated to the Department of Fisheries Ministry of Agriculture and Cooperatives Bureau of Fisheries Administration and Management. The scientific authority is the Fisheries Resources Conservation Division, Department of Fisheries. Harvest form the wild of protected species is only permitted subject to a special licence. Export quotas may also be established.

National conservation measures are also included in the requirements for export/import permits, and a number of additional species are restricted for international trade, other than those listed by CITES. Many of these include species of marine and freshwater ornamental fish, an important export sector and generator of revenue for small scale fishers. The management measures employed on these fisheries under the Wild Animal Protection and Reservation Act are the requirement for a special fishing licence and the export quotas.

Export quotas are recommended by the Fisheries Resources Conservation Division and adopted by the Scientific Committee of Wild Animal Reservation and Protection Act. The Management Authority may then issue export permits, subject to the quota limitation. The quota is allocated on a first come-first served basis. Export certificates are issued on application by registered exporters. The Fish Trade Unit and Customs Officers at the border inspection post identify the requirement for a CITES certificate based on the species declared, and check that the correct certification is in place before clearing the consignment. The Royal Thai Police are also empowered to check that possession of a protected species is covered by the relevant licence.

5.3.4 Status of Traceability systems

There is no general requirement set out in law for the application of a traceability system in the Thai fishery sector[28]. However, in three specific sub-sectors there are good models of

[28] It is foreseen that a revision of the Fisheries Law will introduce a general requirements

traceability systems which have been developed and implemented successfully. These concern farmed shrimp and bivalve molluscs (official traceability system) and canned tuna (voluntary dolphin friendly certification). Other sub-sectors have extremely variable traceability conditions (depending largely on the requirements of specific customers).

For export establishments for farmed shrimp and bivalve molluscs approved for the EC, the DoF requires the participation in an official system of full traceability as a condition of approval. For bivalve molluscs the implementation of such a system is a requirement of EC Regulation 854/2004 on Official controls for products of Animal Origin. For farmed shrimp, the system was developed as a means of ensuring compliance with residue limits in aquaculture products set out in the EC requirements, although specific systems of traceability are not required by law for this sector.

The system provides for registration of producers (bivalve harvesters or shrimp farmers), with the allocation of unique numbers, and the issue of an "aquatic animal movement document" in respect of each harvested consignment. Participation is a condition of the export approval. This is completed by the producer (or in the case of illiterate fishers, by the first receiver on the fisher's behalf). The form is endorsed by an official of the Provincial Office of the DoF. The data is also entered into a database. The form then accompanies the product throughout the distribution chain, with subsequent sections completed by each person taking ownership of the product, who is required to indicate the quantities sold to, and the identities of, different purchasers. Where the consignment is split, the form is to be photocopied. When the application for export of shrimp and bivalve products is submitted to the DoF, the relevant certificates are to be produced. The DoF will then cross check that i) the data corresponds with the database records made when the form was first issued; ii) the place of production is subject to proper authorisation and controls, before issue of the export health certificate.

Regarding other segments of the fishery sector, the Thai tuna sector, is probably the sector most able to respond to the requirements of Regulation 1005/2008, due to the systems already established to meet the dolphin friendly certification requirements of the IMMP implemented by the EII from 2005. The additional controls under the IMMP Scheme, with EII inspectors on the spot (one of which is based in Thailand) has ensured that the controls are meaningful. The result was that the Thai tuna industry has switched to sourcing directly from SW Pacific caught fish, rather than Indian Ocean caught via Singapore traders, since it can obtain the relevant data and certification documentation from these fleets. Under the IMMP scheme, twenty eight enterprises, within the Thai sector, have certified internal systems of traceability, which guarantee separation of batches from different sources, record keeping and batch labelling allowing validation of declared catching vessel, catch method and location.

A recent study (Doherty and Campling, 2007[29]) compared DG SANCO FVO practices in relation to the application of sanitary conditions to non-originating processed tuna exports from Thailand and several African ACP countries (Kenya, Seychelles, Mauritius). The study found that "strong indications exist" that there was a possibility that tuna processors in Thailand were using fish from non-approved sources for exports to the EC. This finding was based on the fact that exports of tuna to Thailand from vessels flagged by approved third country suppliers accounted for only about one third of tuna supplies into Thai canneries. Whilst these volumes were greater than the corresponding volume exported to the EC (about 184,000 tonnes in 2006, adjusted for yields), at that time Thai canners were not able to disprove the possibility of unauthorised supplies entering the EC marketing chain. This was certainly the case when in 2004, the SANCO FVO mission to Singapore[30] (which at that time was major transhipment point for tuna

[29] Doherty, M. and Campling, L. (2007). Comparative Analysis of SPS Issues in Canned Tuna Production in Mauritius/the Seychelles and Thailand: Follow-Up Study. Report commissioned by the Regional Trade Facilitation Programme on behalf of the COMESA Secretariat, Lusaka, Zambia, Regional Trade Facilitation Programme, RTFP Contract No. 63, 31 October 2007 http://www.rtfp.org/

[30] Final Report of a mission carried out in Singapore from 19 to 28 July 2004 assessing the conditions of production of fishery products intended for export to the European Union.

supplied into the Thai cannery sector) found that *"the majority of the fishing vessels (supplying cold stores in Singapore) were not on the list of the registered freezer vessels notified to the Commission services for the different third countries concerned"*.

However, it should also be mentioned that the tuna distribution pattern has changed significantly since 2004. The Singapore/Thai tuna trade was virtually eliminated by the US policy of buying only from dolphin friendly sources, and the voluntary controls under the EII IMMP Scheme. Perhaps as a by product of the systems put in place in response to meet the dolphin certification requirements Thai cannery processors are now able to identify and select fish for their EU export processing which comes only from EU approved vessels. However, whether they actually do so is not established. The FVO of the DG SANCO has recently expressed concern regarding the lack of controls regarding origin of imported fishery products.

As noted, discussions in the present study indicate that detailed checks are not routinely made by the Competent Authority on the origin of product in consignments of fishery products exported to the EC. This raises the possibility that some non-authorised sources could be entering the EC supply chain, without the knowledge of the CA. The DoF is aware of the problem, and is seeking to strengthen controls in this area, for example by strengthening checks on traceability information held in relation to specific export batches. However, full implementation is hampered by lack of the formal enactment of legislation requiring traceability, and by a lack of skills and inspector training, for example to cross check exports with invoices for raw materials from different sources.

5.3.5 Type and volume of certification required for implementation of the Regulation

There are two activities which the Government of Thailand will need to undertake in relation to the implementation of the new regulation:

Activity 1: Validation of catch certificates from Thai vessels landing in Thailand and in other countries.

Government of Thailand will need to provide validation of catch certificates from vessels operating in Thai and regional waters, and landing in Thailand, as well as for some 400 vessels which operate in foreign EEZs or international waters and land in other countries. With regard to the domestic landings, the challenge is to provide validation of catch certification for catches from a wide range of fishing vessels operating in widely differing conditions, whilst at present there is relatively little information available regarding the activities of individual vessels. Thailand has a large fleet of small scale vessels. Many of these appear not to be formally registered with the Marine Department. Perhaps only about 14,000 out of more than 50,000 vessels are formally registered. The Department of Fisheries only registers fishing gears, which may or may not be associated with an individual vessel. Vessels which operate with a fishing gear which does not require a licence may not be recorded in any central database. The basis for certification of catches is therefore undermined by a lack of consistency in the approach to ensure that specific vessels are adequately defined as the basis for certification. However with regard to the distant water fleet, all of the vessels are registered and clearly identifiable. Some of the vessels operate under flags of the country in which they operate (e.g. Indonesia, Iran), yet are still regarded as falling with Thai jurisdiction, for fisheries management and duty purposes, because of their Thai ownership. For the purposes of the EC catch certification scheme, jurisdiction over Thai owned vessels operating under foreign flags clearly falls to the flag state. The owners will need to make the relevant applications to the flag state authority. For the Thai flagged vessels in this sector, the Government of Thailand will need to make arrangements for port state controls for the provision of data for the validation of catch certificates in relation to

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Summary for the DG SANCO report on the conditions pertaining to the production and exportation of fishery products from Singapore to the European Union. Source: DG (SANCO) 7340/2004

fishery products which are landed into third countries.

Activity 2: Provision of statements in relation to export and re-export of processed fishery products (indirect importation to the EC)

Almost all of the fishery product exports are consigned via processing establishments. Where raw material is imported Regulation 1005/2008 requires that, in addition to the original catch certificates, such consignments must be accompanied by additional declarations from the competent authority of the consigning country, as well as the certificates issued by the flag state. As far as can be ascertained overall about 30% of exports nominally comprise imported fishery products, but this rises to 90% in the case of canned tuna products and over 70% in the case of other marine fish products. Most of the imports enter processing, where they supplement locally caught raw materials. The GoT will need to a) ensure that a valid catch certificate accompanied such consignments exported to the EC and b) to issue "processing statements" in accordance with Article 14 and Annex IV of the Regulation. Where products are processed, the Competent Authority should endorse a processor's statement of the exact processing steps and quantities. This will require the DoF and/or the Customs to ensure that imported raw materials entering processing establishments are tracked and recorded.

Estimating the number of catch certificates required to be issued by the Government of Thailand (Activity 1), in compliance with Regulation 1005/2008 is made difficult due to the lack of data regarding the linkages between specific fleet segments and EU exports. This is particularly true for some of the domestic and smaller scale fleet segments. Only in one fleet segment (four purse seiners operating in the Indian Ocean) is it possible to identify a direct link to the EC market. For the remaining segments, the only feasible approach is a global one which estimates numbers of certificates assuming that all sectors supply the EC market pro-rata to the volume of EC trade. For registered vessels, this suggests a total of about 500,000 catch certificates per annum (Table 8). About 5% of these will be issued for catches landed in other countries (requiring port state controls to provide validation data). The balance would be in Thailand. It is important to note that this estimate does not include catches from unregistered small scale vessels. Assuming 10% of the estimated 50,000 such vessels supply the EC market suggests that an additional 1.25 million landing events per annum would need to be certified.

In relation to Activity 2, there is a high level of dependency on imported raw material. Each year there are some 29,000 consignments of fishery products exported to the EC, and assuming that 30% of the exports to the EC are derived from imports, the Government of Thailand will also need to issue some 9,000 "processing statements" in accordance with Article 14 and Annex IV of the Regulation. In fact the number is likely to be higher than this due to the disproportionate quantities of import dependent canned tuna exported to the EC market. This number should be regarded as a minimum.

Thailand may need to respond to requests by flag states to provide data relating to landings by their vessels in Thailand. A number of non-Thai vessels operating in the Indian Ocean land their catch into Phuket, for transhipment to other destinations. Most of this activity is by surface longliners flagged by other SE Asian countries, with tuna products consigned to Japan. It is certainly feasible that some of this product is consigned to the EC (for example, non-premium grades of large yellowfin tuna could be processed and exported for the fresh loin market). However the trade statistics suggest that amounts are limited, and this will only be a relatively minor activity.

Table 8: Estimated numbers of landing events in Thai flagged fleet segments associated with the exports to the EC, 2008

Type of vessel	Landing	No. Vessels	No. landings/ year/ vessel	No. Landing events/ year	% consigned to EU	Estimated no. of certificates
Indian Ocean Purse seiners	Foreign	6	12	72	100	72
Other deep sea vessels (trawl)	Foreign	377	12	4,524	30	1,357
Regional vessels	Foreign	1,521	50	76,050	30	22,815
Coastal vessels class 1	Thailand	2,818	50	140,900	30	42,270
Coastal vessels class 2	Thailand	4,778	50	238,900	30	71,670
Coastal vessels class 3	Thailand	5,016	250	1,254,000	30	376,200
TOTAL						514,384

Sources: Industry consultations; DoF, consultant estimate

5.3.6 Technical and administrative capacity for catch certification

Validation of catch certification (Activity 1)

The controls exerted by the GoT over activities of fishing vessels are not comprehensive, and where they do apply they will not provide a sufficient basis for certification under the terms of Regulation 1005/2008. Not all fishing vessel are subject to registration requirement, and there is evidence that many smaller scale vessels operate without being registered. In addition, fishing licences are attached to gears, not vessels. As a result direct methods of control over vessels are limited and there is no single central database of all fishing vessels which undermines effective landing declarations. In the longer term, there is a plan for the restructuring of the fisheries management system and a replacement of the 1947 Fisheries Act. These plans will need to consider more rigorous conditions for registration of fishing vessels (based on fisheries management criteria) as well as the introduction of a fishing vessel licensing scheme.

Statements in relation to imported and re-exported fishery products (Activity 2)

One of the international strategic strengths of Thailand is its value added processing, distribution technology and marketing skills, which allow it to receive raw material from a large number of different sources, add value and sell to key international buyers in USA, Japan and the EC, its main client markets. However, a major threat to the unique position of this country as a kind of “global middleman” is that it is exposed to the risk of non-compliances by its supplying countries, with the technical requirements of its export markets. This applies to sanitary requirements, as well as the new IUU controls introduced by Regulation 1005/2008.

Thailand imports fishery products from some well known operators of flags of non-compliance such as Vanuatu, In addition, IUU products are often mis-declared in terms of species and origin. At present, neither official controls applied with respect to sanitary certification, nor the certification of origin appear to be sufficient to ensure that imported fishery products are not passed off as being of Thai origin. Given the wide range of sources of supply, the highly diverse

range of species imported and the sophistication of processing sector, there is a high risk of Thailand being used by unscrupulous operators (foreign and national) for laundering of IUU fish (for example through false or misleading declarations regarding species and origin) which the official controls in their present form are unable to identify.

Without stricter conditions applied to the origin of imported fishery products, it is difficult to see how the Thai authorities can meet the requirements of Regulation 1005/2008 in respect of products which are consigned to the EC. In the first instance there is therefore a need for a much deeper understanding of the trading patterns of Thai enterprises, to allow the CAs to establish links between specific import supply chains (species/origins) and exports (products/markets), as a basis for identifying the possible routes by which products of IUU fisheries may be laundered in Thailand and passed off as Thai product, thus informing a risk-based approach to management of this issue.

Following from this, for the Regulation 1005/2008 to have the desired outcome of countering this risk in Thailand, there will be a need for the Thai authorities to address:

- strengthening the control over the import of raw materials,
- ensuring imports are accompanied by valid catch certificates
- checking traceability conditions in industry
- validation of “processing statements” in accordance with Article 14(2) and Annex IV of the Regulation

To address this need, Thailand would benefit from a coherent and integrated approach to import controls across different functional boundaries in relation to the IUU regulation. Improved controls over imports in relation to sanitary controls and declaration of origins for tariff preference purposes are also in the interests of Thailand, given its strategic position and in the light of exposure to risks of negative impacts of non-compliances.

The situation therefore suggests that Thailand should consider the integration and strengthening of the different import control systems applied by Thai Customs, Ministry of Commerce (certification of origin), and Department of Fisheries (sanitary and export controls). These will need to be combined with the development of investigative tools which aim to identify fraudulent or unlawful activities activity in relation to origins of imported fishery. These tools may include coordinated inspections at import, in domestic processing and on re-export. There is a need for the GoT to establish a permanent mechanism for these organisations to develop and implement collaborative approaches to improved controls. This would seek to develop systems to ensure that only imported product which met EC sanitary conditions, was correctly identified in terms of any trade preferences, and was accompanied by the relevant validated IUU certificates could enter the EC marketing chain.

An option for consideration is the introduction of a requirement for catch certification as one of the formal import conditions to bring the consignments of fishery products into Thailand. However, given that the final market destination may not be determined (or could easily be mis-declared) at the time of import it is not feasible to restrict such a requirement to products only intended for the EU market. It would therefore have to be a requirement which applied to all products falling within certain classes of imported fishery products. Given the volume of imports it is desirable that a risk based approach be adopted, which seeks to identify importers, species, countries of origin and exporters which might be most likely to engage in trade in IUU products. This is analogous to the existing approach taken by Thailand regarding residue controls in imported shrimp. More work will be required to identify imported fishery products by country of origin, along with an “IUU risk profiling” (which might involve a detailed survey of origins of a stratified sample of consignments, including species identification and tracing back to vessel of origin). The system should include an ex-post verification of a sample of export consignments, which uses all means available to cross check across different ministries and control authorities with a view to identifying the validity of the declared origin of the fishery products concerned. Even simple measures (such as opening a container of imported fishery products and verifying the species) would provide useful data to allow a risk based approach to IUU controls.

5.3.7 Official checks on origin

Whether they contain imported raw materials, or fish from Thai vessels, consignments of processed fishery products exported to the EC will need to be accompanied by validated catch certificates. In order to ensure that there is a demonstrable linkage between the validated catch certificate and the exported consignment the DoF will need to take additional measures to ensure that fishery enterprises implement satisfactory systems of traceability, and maintain integrity of EU supply chain throughout their process (to prevent non-authorised raw materials from entering the EC channel). Record keeping systems will be required to be able to demonstrate that the defined system is effectively implemented.

In Thailand mandatory systems of traceability are in place for bivalve molluscs and for farmed fishery products (notably shrimp). However, aquaculture products and most species of bivalve molluscs fall within Annex 1 of the IUU regulation (List of products excluded from the definition of fishery products) and therefore are not directly applicable. A statistical catch documentation system for bigeye tuna is implemented as part of the obligations of Thailand as a result of membership of the IOTC. However, this does not apply to small fish for cannery supply, and is therefore only applied to bigeye tuna exported to E Asia, mainly Japan.

Since 2005, the supply chain for the Thai cannery sector has undergone a major change, and new systems of traceability have been introduced in response to the requirements of the US market for dolphin friendly tuna. The legal requirements, under the IATTC scheme have had some impact, but the major influence has been the stricter certification conditions, including the on-the-spot-validation introduced by the Earth Island Institute IMMMP and the “dolphin-friendly” labelling scheme. As a result of this, the supply chain for tuna into the Thai canneries has been considerably shortened (to cut out intermediate transhipment via cold stores in Singapore). The industry has introduced vessel level traceability systems, to allow the identification of catching vessel, and ensure that the conditions required for the mandatory NOAA certificates and the right to use the EII certification are met. There are some doubts whether the canners apply these systems in all circumstances, for example to EC markets, to ensure that product from vessels flagged to states which have not met EC sanitary conditions. Nevertheless, it is clear that no less than 28 cannery operations in Thailand are certified by the EII as having met the requirements of the scheme, and therefore have a substantial in house capacity to implement vessel level traceability, and maintain and provide integrity of the supply chain. It is therefore clear that the industry has implemented a high level of traceability.

However, there is one major difference between the existing system and the IUU catch certification under regulation 1005/2008. Neither the NOAA Form 370, nor the EII scheme require any validation by the flag state of the vessel (unless the operation is a drift net operation from Italy), whilst for the EC system, the certification will require an additional step involving the official control by the Competent Authority of the flag state. The Thai cannery sector is concerned that this will pose a problem in relation to the diversity of the countries (flag states) supplying the raw material, and the risk that they will not be all be able to respond fully to the requirements of 1005/2008, thus restricting the flexibility of the raw material supplies into the canneries. The regulation may therefore cause some adjustment of the trading patterns in favour of those countries which are able to establish the certification capacity.

Other processing sub-sectors (marine fish, cephalopods) show weaker development of traceability systems. There is no specific requirement for traceability expressed in law, and although the DoF conditions for EC approval number require traceability, this is not strictly defined and enforcement is variable. Many processors have developed relatively advanced systems in response to customer requirements (for example in response to BRC - British Retail Consortium certification requirements). Once again traceability levels appear to be good in this segment.

5.3.8 Thailand Needs assessment

Thailand has a well developed fishery sector, with sophisticated and well founded supply chains (including national and distant water fisheries, and imports) and a highly developed export processing and distribution sector. It has developed a sound system of sanitary controls to

meet HACCP and residue control requirements of all of the major markets. However, fisheries management and control systems are relatively weak, being limited by out of date legislation and poorly developed institutional capacity for fisheries MCS. This weakness limits the capacity of the country to validate catch certificates in compliance with the Regulation.

Furthermore the high dependency on imports as raw material for exports, and the high risk of laundering of IUU products via this route, means that Thailand is one of the few countries which will need to develop a substantive response to the implementation of the Article 14/Annex 4 requirements. At present its capacity to undertake this is limited due to lack of coherence and weak implementation in present import controls for fishery products regarding sanitary, preferential origins and conservation measures. However commercial traceability systems are in place and appear to be effective.

Therefore the needs of Thailand for implementation of the regulation include:

Activities	Means required
Adaptation of the legal framework	Defining the system for catch certification and validation
Exchange of information between Authorities	Strengthen linkages on fisheries on fisheries controls between central and local government.
Strengthened systems of import controls, to ensure validity of origin claims made in relation to imported fishery products	Establish import control unit combining customs, trade, sanitary and fisheries functions to implement cross checks on declarations of identity and origin of imported fishery products.
Strengthening controls upon landings	Extend and strengthen the fisheries MCS system, additional inspection staff to validate catch certificates at national ports (both Thai and foreign vessels). Introduction of landing controls and database

Unlike other countries in the region Thailand has a centralised fisheries administration, with the DoF responsible for implementation of fisheries controls throughout the country. The DoF therefore operates through regional offices and there is no delegation of functions to local government. This means that validation/catch certification and issue of “processing statements” in accordance with Article 14 and Annex IV of the Regulation can be implemented directly by central government, without the need to address issues of local government jurisdiction, capacity and budgets. This is an important advantage. However, there are a number of other problems which will make implementation difficult in relation to catch certification.

It should also be noted that many Thai owned vessels operate under foreign flags. Until now the Department of Fisheries has tended to regard all of these vessels as Thai vessels, but the approach will need to be modified to ensure that flag state responsibilities with regards to IUU are more clearly defined in future.

5.3.9 Expected impacts of catch certification on illegal fishing

The lack of controls over vessels operating outside the Thai EEZ and absence of monitoring systems means that Thai flagged vessels are potentially involved in IUU fishing in many parts of the world. The high level of indirect exports to the EC via Thailand presents a significant risk of IUU products entering via this route (see Annex 12).

The weakness of the fisheries management system and the high strategic dependency on imports present Thailand with a considerable challenge in the effective implementation of catch certification and validation systems. However, there is a centralised fisheries administration, with well trained staff and access to financial resources for investment. Given the major

strategic importance of the EC market to the fishery sector, there is a strong incentive for implementation and in time, Thailand should be able to implement the catch certification system for its own flagged vessels effectively, with an associated reduction in illegal fishing activities, especially within the EEZ of other coastal states.

The Thai fishery sector is substantially integrated internationally. Thai vessels have a very wide range of operations, and the requirement for catch certification will depend on effective mechanisms of port state controls by third countries. Similarly, Thailand imports fishery products from many different countries. Therefore the success of the catch certification in terms of reducing illegal fishing with respect to fishery products from these sources of supply, will depend substantially on the capacity of other third countries to implement the necessary port and flag state controls. Providing that these other third countries implement their systems effectively, the catch certification system is expected to be an effective mechanism for reducing illegal fishing. However, the cost to Thailand will be the potential loss of some supplies presently derived from IUU sources, or at least the re-direction of these products to less profitable non-EC markets.

5.4 Morocco

5.4.1 Fishery sector profile

Resources in the EEZ of Morocco are comprised of a wide range of commercial species including demersal finfish species, crustaceans (shrimps), cephalopods and small pelagics (sardine, mackerel, anchovies). Some migratory species (swordfish and bluefin) are also present seasonally.

The domestic fishing fleet of Morocco includes three categories of fishing vessels. The first category is the artisanal fleet. It was composed in 2007 of 14 225 open-deck wooden boats spread along the coast with 40% concentrated in the South of the country. This fleet uses passive gears and targets mostly demersal fish and cephalopods on the continental shelf. Fishing trips last less than 1 day. The second category is the coastal fleet. It comprised in 2007 1816 decked vessels measuring between 15 and 25 m on average. The vessels of this fleet use passive (longline) or active (trawl, purse seine) gears and target all types of species. Fishing trips last between 1 and 3 days. The third category is the industrial fleet. It was made of 329 active units in 2007, mostly trawlers targeting cephalopods and crustaceans. Products are kept frozen onboard and fishing trips can last several weeks.

Foreign flagged fishing vessels operating in the EEZ of Morocco are those operating under the three fishing agreements (Japan for 10 longliners, Russia for a dozen of small pelagic trawlers, EU for about a hundred of various types of vessels) and 20 fishing vessels chartered for exploitation of small pelagics in the South. The chartered fleet fly various flags, including flags of convenience. Except for Japan, foreign fleets have to land a percentage of their catches in Morocco to supply the local processing industry.

Landings in Morocco were estimated at 823,000 t in 2007 for a first sale value of EUR 329 million. While 86% of landings in weight are composed of small pelagic species, 61% of the value of landings originates from demersal species. Production is utilised by 406 processing units, of which 190 are specialised in frozen products, 75 on fresh products and 44 on canning of tuna and small pelagics.

The total value of exports of fisheries products from Morocco totalled EUR 1.2 billion € in 2007, 11% of total exports of the country. The EU is the main market representing 52% of exports of fisheries products (value of EUR 741 million in 2007). The main categories exported to the EU include frozen molluscs (EUR 270 million), canned fish (EUR 200 million) and fresh fish (EUR 100 million). Given the proximity between Morocco and Spain, it can take less than 6 hours between landing of fresh fish in Morocco and presentation to the European border inspection post. In 2007, 82% of exports entered the EU by sea and 14% by road.

Imports of fisheries products include raw material for subsequent re-exporting after processing in Morocco. In 2007, imports were dominated by *Crangon* shrimps originating from the Netherlands and Belgium, and small pelagics and tunas originating from France, Spain, Italy

and the Netherlands. Imports are also composed by small quantities of anchovies imported from Argentina or shrimps imported from Canada, as well as quantities landed directly in Morocco by licensed foreign vessels under fishing agreement or chartering arrangement.

5.4.2 Fisheries management and controls

Fisheries management system

The Direction des Pêches Maritimes et de l'Aquaculture (DPMA) is the responsible authority. Control of inputs through licensing is the main fisheries management tools used in Morocco. It applies to all fleets, including the artisanal vessels which have to obtain a licence. For the octopus fishery, fisheries management includes also allocation of fishing quotas to participants under a dedicated fishery management plan. The small pelagic fishery should be subject to a fisheries management plan in the near future, which will imply allocation of quotas across the fleet.

Vessel registration

Registration of fishing vessels is also under the responsibility of the DPMA. It maintains a central register of all authorised fishing vessels, which includes the artisanal vessels. The register can be accessed from regional delegations using the internet-based information system of the Ministry. Inscription in the central register is a prerequisite for obtaining a licence.

MCS system

MCS tasks are shared between various institutions. In brief, Military forces are responsible for control at sea (naval and aerial surveillance), while the fisheries administration is responsible for controls on the legality of operations of fishing vessels and processing industries mostly through shore controls. The major weakness of the current MCS framework is the absence of monitoring of the national fishing fleet by VMS. However the legal requirement is in place although detailed regulations have not been developed. The VMS should be implemented in the near future. Logbooks or catch declaration obligations have also a partial coverage applying only on the industrial fleet and all types of vessels targeting species under specific management plans (octopus for now, and small pelagics forthcoming). Monitoring and control of the supply chain from first sale to export is based mostly on the traceability offered by sanitary certification, with additional measures imposed on processing units using species under management plans (including compulsory register of input / output backed by proofs of purchases / sales).

5.4.3 Export controls for fishery products

Certification of origin

Preferential certificates of origin may only be issued by the The Moroccan Customs Authority. Non-preferential CoOs may be issued by any of 28 Regional Chambers of Commerce.

When a preferential CoO is required, the exporter applies directly to the Customs Authority at the port of export, and submit supporting documents (sanitary certificate, invoices and bill of lading). In cases of doubt regarding the origin of the consignment, or when a query is received from the importing country authorities the Customs will investigate the provenance of the goods by requesting additional documentation. This may include purchases documents indicating the supplying vessel, its registration papers, information regarding the crew composition and captain, fishing zone and any other relevant data. Where the exported fishery products are derived from processing of raw materials of imported origin, and these have been admitted on the basis of a temporary admission, customs taxes are suspended, a higher level of technical control is applied to guard against fraudulent claims for tax rebates. Otherwise there are no specific routine checks on origin.

There is no concept of approved economic operators in the fishery sector. Morocco is a signatory of the Kyoto Convention. It has large foreign industrial operators in the country (car

builders) that pressure the administration on harmonisation. However, it has not adopted Annex K on Certification of Origin.

Sanitary certification

Morocco is permitted to supply the EC with fishery products for human consumption subject to Specific decision of the Commission "95/30/CE: Décision de la Commission du 10 février 1995 fixant les conditions particulières d'importation des produits de la pêche et de l'agriculture originaires du Maroc *Journal officiel n° L 042 du 24/02/1995 p. 0032 – 0043.* The Competent Authority is the Minstère de l'Agriculture du Développement Rural et des Pêches Maritimes, Division Vétérinaire de l'Hygiene Alimentaire. The last inspection mission by DG SANCO FVO took place in June 2005. The findings of the mission were that the sanitary conditions were generally regarded as satisfactory, thanks to significant improvements in the preceding period, although there are some remaining deficiencies on the testing conducted in the laboratories of the Institut National de Recherche Halieutique. In October 2008, there were 361 approved processing plants (including 6 which are used for farmed aquaculture products and 6 which are cold store only) and 388 approved freezing vessels approved by the Competent Authority for supply to the EC market.

RFMO catch certification

Morocco is a contracting party of ICCAT and the CGPM (General Fisheries Commission for the Mediterranean). ICCAT measures apply to Morocco for the exports of swordfish fished by the coastal fleets and for the captures and export of bluefin tuna, caught in *"madragues"* located around Tangier and Larache, and by the five authorized purse seiners carrying the Moroccan flag (only one of these 5 vessels would be significantly active).

The documents are drawn up and validated within the regional fisheries delegations. With regard to the trade documentation for swordfish, which is generally exported in a fresh state to Europe, the fisheries administration only certify the elements concerning the identification of the catching vessel and the quantities exported. It should be noted that the Moroccan vessels catch swordfish using drift gill nets. ICCAT granted the country an exemption up to 2012, to the requirements to eliminate this practice definitively.

With regard to bluefin tuna, Morocco implements the ICCAT rules set out in the recommendation [06-05]. Amongst other things, the producing units (madragues and seiners) are subjected to a reinforced control using observers on board the vessels. The transhipment of the catches from the madragues to the factory ship (generally Asian flagged) is supervised by inspectors from Ministry. This trade however, is mainly directed at Japanese markets, and will therefore fall outside the scope of the IUU regulation.

CITES certification

Morocco is home to six species listed in the Appendices to CITES. In Appendix I there are *Pristis pectinata* (Smalltooth sawfish), *Pristis pristis* (Common sawfish), *Carcharodon carcharias* (White shark), and *Cetorhinus maximus* (Basking shark). In Appendix II there are *Rhincodon typus* (Whale shark) and *Lithophaga lithophaga* (Date shell).

The overall management authority responsible for the issuing export certificates is "Haut Commissariat aux Eaux et Forêts et à la Lutte contre la Désertification", Direction de la Lutte contre la Désertification et de la Protection de la Nature. For marine species the scientific authority is the "Institut National de Recherche Halieutique".

There is no trade in these species and in certificates are issued only occasionally in relation to scientific research.

Export certification for octopus

Octopus was subject to quota management for many years, but stocks continued to decline due to illegal fishing. It was considered important to create a means of strengthened follow-up, to

ensure that all of the exported octopus was indeed recorded in the landing declarations. The Moroccan administration thus implemented "*the Octopus system*". This requires that the exporter shall submit to the authorities before export a request specifying the detailed origin of the products, and that this is validated by the submission of the landing documents indicating the weight, and the Sanitary Certificate from the time of the first sale. In addition, the exporter must maintain an up to date input register and stock controls, to provide that no product from unauthorised sources has entered the plant. The administration can inspect at any time, to check the quantities correspond. A check is made at the time of the preparation of the file for export certification, taking account of processing yields and coefficients.

After the implementation of the increased control regime on octopus catches, the Authorities noted that the discrepancy between recorded landings and recorded exports narrowed significantly. The gap between landings and exports was estimated to be equivalent to almost 100% of declared landings in 2003 (the last year before the implementation of the management plan) with 28 900 tonnes recorded as landings and 51 500 tonnes exported. In 2007, in the third year of the management plan, the gap was reduced to 10% with 41 000 tonnes recorded as landings and 45 500 tonnes exported (source: ONP).

The experience in Morocco shows that increased control of products along the processing chain leading to export can improve compliance with regulations. If the implementation of the certification measure leads to comparable results for other critical fisheries, it is likely that Morocco will obtain substantial benefits in terms of resource conditions and also tax income (legal landings are subject to various taxes that can exceed 10% *ad valorem*).

5.4.4 Status of Traceability systems

The Sanitary certification system also forms the backbone of the system of traceability for the Moroccan fishery products. At the time of the unloading of the vessel (fresh or frozen), the sanitary Competent Authority checks the products on the vessel, and issues a health certificate which indicates the vessel of origin. The certificate indicates the specific batch numbers of fishery products, and is connected to the related catch documentation (note of the transaction of sale, listing the volume and value of species, selling vessel and the purchaser).

Only products which are landed from authorised vessels, and processed in an approved establishment may be exported to the EC. After processing, the product is the subject of an additional sanitary check for the issue of the EC health certificate. This always includes a check on the product, sampling and testing if appropriate and a check on the certificate delivered with the raw material. In the port a final check on the integrity of the consignment is carried out on the spot by the "Etablissement Autonome de Controle et de Coordination Des Exportations". (EACCE) before the issue of the sanitary certificate.

In addition, as described above the traceability of the products was recently considerably reinforced in the case of octopus.

5.4.5 Type of certification required for implementation of the Regulation

Activity 1: Validation of catch certificates from Moroccan vessels landing in Morocco and in other countries.

Government of Morocco will need to provide validation of catch certificates from vessels operating in Moroccan and international waters, and landing in Morocco. The main target of the certification activity will be the 329 actives vessels of the industrial fleet. Amongst these are about 250 cephalopod trawlers, 62 shrimp trawlers and other vessels targeting small pelagic fishes.

In addition, the certification activity will also have to cover about 1800 vessels in the coastal fleet, all segments of which can supply demersal fish, large pelagics and cephalopods to the EC market. Included in this are catches from small seiners targeting small pelagic fish which supply the canneries (up to 444 vessels). There is also a fleet of 314 polyvalente small scale vessels, many of which can supply the fresh exports to the EC, landing directly in Tanger and other ports

for road transport to the EC. The relatively high proportion of exports to the EC which are consigned by road in fresh form, means that validation of catch certification will need to be executed rapidly and on-the-spot, for most species and in most ports. There are some landings in other states. In particular, Moroccan vessels operating in Guinea land in Senegal, subject to a special licence. It is not know whether these vessels are also properly licensed by Guinea.

Activity 2: Provision of statements in relation to export and re-export of processed fishery products (indirect importation to the EC)

The Competent Authority is required to validate processors statements in relation to indirect exports of fishery products to the EC (that is, products originating in other third countries). The main categories of import and re-export involve shrimp of EC origin, imported for peeling and re-export (about 2,700 tonnes in 2007). However, some EC exports are also derived from imported raw material from other sources e.g. shrimp from Canada and anchovies from Argentina.

In addition, fish and fishery products from EC vessels landing in Morocco will need to be consigned to the EC market with catch certificates validated by their flag state. This applies to EC vessels landing cephalopods, demersal fish, and small pelagic fish from the EEZ, along with surface long liners and pole and vessels which target larger pelagic fish. The requirement could apply to up to 137 EC vessels plus demersal trawlers operating under the EC-Morocco Fisheries Partnership Agreement, and includes vessels from Spain, France, Latvia, Lithuania, Portugal. In addition, up to 12 Russian flagged small pelagic freezer vessels may also consign some of their product to the EC. If the GoM is requested by the flag states of these vessels, there will be a need to provide port state control services to provide an evidential basis for the validation.

5.4.6 Technical and administrative capacity for catch certification

Validation of catch certification (Activity 1)

Morocco has already enforced specific monitoring and control measures of the supply chain that will provide to the designated competent authorities[31] the tools necessary for verification of the legitimacy of catches. There is an effective vessel registration and licensing system in place. Catch logbook and landing declarations are clearly defined and implemented for deep-sea vessels, the small pelagic fleet and all landings of octopus. The landing declarations are validated by inspections at the point of landing.

There will be a need for the development of specific administrative procedures for the validation of catch certificates. Under the assumption that the DPMA and the Regional Delegations will be the competent authorities for validating the certification of the catches, it will be necessary to implement specific procedures to include these Authorities in the checks before exportation.

The DPMA has no specific mandate in law regarding the traceability of the product after the first sale by the vessel. If this Authority is to verify the catch certificates on export, specific procedures should be implemented, in collaboration with the state export control organisation, “Etablissement Autonome de Controle et de Coordination Des Exportations”. (EACCE). Such procedures already exist in the frame of the control measures associated with the Octopus Management Plan, with the certification by the DPMA of the balance of products manipulated by the processing sector. A similar system for all products would require the obligation that all registered processing companies to maintain registers of inflow/outflows of material. This legal requirement will also provide evidential basis for the certification of information contained in Annex IV of Reg (EC) 1005/2008.

[31] Not designated officially as yet, but the Direction des Pêches Maritimes et de l’Aquaculture and the Délégations régionales will most likely be responsible for catch certificates as is the case for certification systems under the RFMOs

In addition, during the biological rest periods Moroccan vessels can seek and obtain fishing possibilities in EEZ under the jurisdiction of other Coastal States. There is evidence of activities of national vessels in the waters of Guinea and Mauritania. Additional measures will need to be developed for validation of catch certificates in such cases.

The legal framework includes the requirement for VMS, but needs detailed legal implementation rules defining the vessels concerned and the operational conditions, as well as procedures for exchanging VMS information between all the national bodies tasked with surveillance (including the Royal Navy, Royal Gendarmerie). Once it is implemented it will provide an additional controls and a more valid basis for issue of catch certificates.

Statements in relation to imported and re-exported fishery products (Acivity 2)

At present the supply chain which involves the importation, processing and re-export of shrimp of EC origin is not subject to strict controls on quantities. In future, to be able to validate the statements regarding the export quantities, the Moroccan authorities will need to implement system of control over imports. This will need to ensure that consignments are accompanied by validated catch certificates (issued by an EC Member State), that the that imported quantities and species correspond with the actual volumes of products, and that exported products also correspond to the quantities, adjusted for processing yields. This is to exclude the risk of non-controlled and possibly IUU imports of shrimp from entering this supply chain. There will be a need to require the processor to implement a verifiable system of traceability (see below) and this will need to be inspected and verified by the Moroccan Competent Authority. None of these administrative systems are in place at present, and will need to be developed.

5.4.7 Official traceability checks required for catch certification

Generally, the current traceability system implemented in Morocco is satisfactory to track fisheries products from their point of first sale to the exportation point. However, this system should be completed to include traceability of fisheries products as soon as they are caught or at the minimum as soon as they are landed in Morocco to check the coherence between quantities landed and quantities sold through the distribution chain.

At the moment, the traceability framework is complete for industrial vessels. Fishing masters must complete a detailed logbook and submit upon landing a landing declaration, checked by the Authorities. Then, the fisheries product enters the commercialisation chain and can be tracked through the standard or reinforced (in the case of octopus) traceability procedures.

For Coastal and Artisanal vessels, traceability is complete only in the case of octopus. Fishing masters must submit a landing declaration that is checked by the Authorities upon landing and further checked against quantities traced through the commercialisation system up to the point of export in the frame the “Octopus” system. In the case of artisanal fishing vessels based in isolated regions of the coastline, a specific arrangement has been put in place by which the first buyers submit to the Authorities a declaration detailing the origin of the fisheries products, including the identification of the selling boat(s).

The landing declaration is currently tentatively extended by the Authorities to other fisheries products. However this initiative is not backed by a legal text. The landing declaration was first introduced in Morocco through the implementation of the Octopus Management Plan in 2004 as an additional monitoring measure. In view of the forthcoming fisheries management plan for small pelagics, the landing declaration is progressively extended to vessels targeting these species in the most important ports like Agadir, but without legal support. Since all Moroccan fisheries will not be subject to fisheries management plans, it could prove necessary to introduce in the legal background the requirement for a landing declaration so as to extend the traceability system to landings. The extension of the logbook requirement to other categories of vessels could be another option (vessels of 12 m and larger for example).

Processing establishments will need to implement traceability systems, to ensure that product in their establishment is tracked, to retain the integrity of the traceability when batches of product are divided and combined in consignments for export to the EC. The key requirement is to ensure the provision of data which can establish that no external, unauthorised source, of raw

material has entered the supply chain. This also implies the development of an analytical capacity to assess supply chain integrity on the part of the authorities.

5.4.8 Morocco Needs assessment

The overall conclusion of the mission is that the Moroccan Authorities will not face major difficulties to conform to the requirements of the certification scheme of Regulation 1005/2008. The main requirements are in relation to adaptation of the legal framework to express the administrative procedures, development and capacity of the human resources. The following activities and means will therefore be required to ensure the result of the effective implementation of the catch certification scheme.

Activities	Means required
Extension of landing declaration system to landings	Amendment to the current legal framework to introduce landing declarations for all vessels. Possibility to extend logbook obligation to the larger vessels of the Coastal fleet.
Design new procedures for control of exports involving fisheries authorities	Discussions between the various authorities / bodies currently involved in the monitoring and control of exports
Provide for legal existence of the catch certificate	Amendment to the current legal framework to introduce the catch certificate for – at least - exports of fisheries products to the EC and imports of fisheries products into Morocco for subsequent re-exporting to the EC.

The implementation of the certification measures in Morocco is not anticipated to cost significant portion of public budgets. The majority of the activities considered are essentially administrative work to adapt the legal framework and design new control procedures of exports with the other agencies / bodies involved.

5.4.9 Expected impacts of catch certification on illegal fishing

The risk associated with IUU fishing in Morocco waters or by Morocco vessels is considered to be relatively low. However, experience in Morocco shows that increased control of products along the processing chain leading to export can improve significantly compliance with regulations. After the implementation of the increased control regime on octopus catches, the Authorities noted that the discrepancy between recorded landings and recorded exports narrowed significantly. The gap between landings and exports was estimated to be equivalent to almost 100% of declared landings in 2003 (the last year before the implementation of the management plan) with 28 900 tonnes recorded as landings and 51 500 tonnes exported. In 2007, in the third year of the management plan, the gap was reduced to 10% with 41 000 tonnes recorded as landings and 45 500 tonnes exported (source : ONP). If the implementation of the certification measure leads to comparable results for other critical fisheries, it is likely that Morocco will obtain substantial benefits in terms of resource conditions and also tax income.

5.5 Ecuador

5.5.1 Fishery sector profile

Fishery resources in Ecuador are dominated by pelagic species. These include tuna species such as skipjack, yellowfin and bigeye tuna, large pelagics such as dolphinfish (or mahi mahi), swordfish, billfish and shark species, as well as small pelagics such as anchoveta and chub mackerel. Demersal species constitute a much smaller component but involve numerous species, which is typical of tropical fisheries.

The fleets that are of particular importance in terms of exports are the tuna purse seiners, industrial and artisanal longliners, and to a lesser extent, the shrimp trawler fleet.

- There are 87 vessels in the Ecuadorian tuna purse seine fleet and an additional 40 larger purse seiners under foreign flags[32] that have formed joint ventures (association agreements) with local processing companies.
- 22 Ecuadorian industrial longliners operate in the fishery for tuna and other large pelagics. A further 4 foreign longliners operate in Ecuadorian waters under joint ventures.
- There are 205 artisanal longliners (possibly as many as 300), which target large pelagics including tuna (dolphinfish or mahi mahi, billfish, swordfish, and various tuna). Of particular relevance are the 45 larger artisanal longliners (≈ 60 GRT), which take ice onboard and land fresh chilled fish.
- 215 trawlers are involved in the shrimp fishery but take also a substantial amount of demersal fish as bycatch.

Marine capture production in Ecuador has fluctuated from 320,000 t to 590,000 t during the last decade, most of which refer to pelagic species (about 90%). Tuna species dominate the pelagic catches by about 60%, consisting mostly of skipjack, yellowfin and bigeye tuna. Total annual landings by tuna purse seiners in Ecuador have been on average about 285,000 t in recent years and foreign flagged purse seiners land on average 40% of this amount. The trawl shrimp fishery used to be important with catches as high as 14,000 t in 1993 but this has declined to around 2-3,000 t in recent years.

It should be noted that there is a significant production from aquaculture in Ecuador, which are important for exports. Aquaculture production of shrimp was about 56,000 t in 2006. Tilapia has also become important in aquaculture with a production of about 22,000 t in 2006.

The total value of exports has increased from about 1 to at least 1.4 Billion USD during the period 2005-2008[33]. The EC market is the most important export destination for Ecuadorian fishery products, constituting 48% of total export value. In 2007, exports to the EC of tuna products was valued at 260 M€, frozen and preserved shrimp at 252 M€ (mostly from aquaculture), and preserved and frozen fish products at 45 M€, which includes substantial amounts of tilapia from aquaculture (about 6,000 t or roughly half of fish exports to EC).

Imports are in the order of 8-15,000 t of various fishery products including tuna products for the domestic market. Furthermore, the landings of foreign flagged vessels amount to 100,000 t per year on average, which are an important source of raw material for the tuna processing industry.

5.5.2 Fisheries management and controls

Fisheries management system

Obtaining a fishing license is obligatory for both artisanal and industrial fisheries. Fisheries management measures are defined on an annual basis, based on available scientific data. Although the law allows for the setting of quotas or TACs, this is not applied in practice. Instead, management is typically by the application of technical measures such as fishing closures, permitted gears, areas, minimum sizes, etc. This is also the case of tuna fisheries under the responsibility of the IATTC (e.g. use of input controls such as closed seasons, limiting total vessel carrying capacity).

Vessel registration

Vessel registration in Ecuador is the responsibility of the Maritime and Ports Authority and is obligatory for all vessels. A system for the monitoring of vessels by satellite (VMS) is currently being implemented, which is thus linked to vessel registration. 72% of all vessels larger than 20

[32] Panama (19 vessels), Colombia (6), Nicaragua (3), Spain (4), Guatemala (1), Honduras (2), Mexico (1), Peru (1), Vanuatu (2) and Venezuela (1)
[33] 2008 data is still not complete

GRT have installed a tracking device as of 30 Nov. 2008. All industrial vessels have installed VMS, while some 200 smaller vessels are in the process of doing so. The system is under the responsibility of Maritime Authority, but a collaboration agreement is in the process of being established with the Fisheries Administration (SRP), giving access to the system.

MCS system

The Service for Fisheries Control under the Directorate General of Fisheries is responsible for the monitoring control and surveillance of fisheries activity. It has a well-established system for land-based inspections. At sea inspections and operations are carried out in collaboration with the Maritime Authority and Coast Guard.

Observers perform a central role in the MCS system, particularly in relation to the tuna purse seine fishery. All larger purse seiners (> 363 t carry capacity), Ecuadorian and foreign flagged, are covered through the programme financed by the IATTC. In addition there are currently 30 observers being trained by the IATTC to cover the activity of the smaller Ecuadorian purse seiners. Monitoring activities are complemented by the INP with a staff of observers and land-based samplers to cover other fisheries such as small pelagics, trawlers, longline fisheries, etc.

Although there is substantial data on fisheries these are generally fragmented and sometimes inconsistent. The tuna purse seine fishery is monitored closely by the IATTC, including the compilation of data and maintenance of databases, but there is a need to develop this capability "in-house" as well. The SRP has identified this as a weakness and a dedicated service for fisheries statistics is in the process of being established to cover both artisanal and industrial fisheries.

5.5.3 Export controls for fishery products

Certification of origin

In Ecuador, the "Subsecretaría de Recursos Pesqueros (SRP)" is the sole institution that is authorised for the issuing of Certificates of Origin under the GSP+ (i.e. zero tariffs on fishery products). This is one of three types Generalised System of Preferences[34] that provide preferential access to the EU market, and concerns the "special incentive arrangement for sustainable development and good governance", which in practice implies a commitment to ratifying and implementing a set of human rights, labour, environment, and good governance conventions (i.e. 27 conventions in total).

The current GSP+ preferences lapse at the end of 2008 and beneficiary countries were required to apply before 31 October 2008 to extend the scheme of preferences for the period 1 January 2009 to 31 December 2011. The Commission has established the list of beneficiary countries which fulfil the relevant eligibility criteria[35]. Apart from Ecuador, other beneficiaries in the region are Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Peru, and Venezuela. This is of special relevance considering that many of the foreign vessels operating in Ecuador fly these flags. Under the rule on regional cumulation, preferential treatment applies if the origin of catches are from a country (or flag vessel) other than the country of processing provided that they both benefit from the GSP+ scheme (i.e. and provided that rules of origin are respected[36]).

The notable exception to the list of beneficiary countries for the period 2009-2011 is Panama due to the application being submitted after the deadline[37]. If this situation is not resolved it

[34] EC Regulation No. 980/2005 of 27 June 2005
[35] Commission Decision of 9 December 2008; C(2008) 8028
[36] EC Regulation No. 732/2008 of 22 July 2008
[37] Press release from DG TRADE

could be a problem for the tuna processing industry in Ecuador as Panama flagged vessels constitute almost half of all foreign vessels operating in Ecuador (21 out of 44 vessels).

The procedure for issuing certificates of origin is as follows: the exporting company provides the relevant documentation, which includes at a minimum the vessel registration documents, fishing license details, the location of the catch, the crew list and copy of the validated landing document (which defines the area of catch, species, time and date of landing, countersigned by a fisheries inspector of the SRP), invoice details, destination, product description, and details on means of transport. The company must be on the list of registered exporters held by the SRP. Most of the exporters are fishing companies and processors. In the case of shrimp from aquaculture, the "origin of movement certificate" is required.

The total staff dealing with certificates of origin is four (2 in Manta and 2 in Guayaquil), of which two officers (plus one not in staff) are authorised signatories of the certificates of origin. A substantial part of the work load concerns the inspections of companies for export purposes with emphasis on sanitary and hygiene conditions (i.e. sanitary approval) and that systems of traceability are in place. Due attention is given to vessels that do not qualify for preferential tariffs (e.g. Mexico, Vanuatu).

On the basis of the documents (plus the health certificate and customs document), the SRP issues the relevant certificate of origin. Most exports to the EU are consigned by sea and the certificates of origin are issued retrospectively, after consignment of the goods; the consignor then forwards the originals to consignee at the port of destination.

A total of 2193 certificates of origin were issued for export in 2007. More detailed data was provided for 2008 (until 20 October), showing that a total of 2416 were issued. Considering the certificates issued in 2008, tuna constituted 90%, shrimp 6% (3,400 t presumably of wild shrimp), and other fish 4% (1,998 t). Note that in the case of fish, this is much lower than the total exports of fish products (roughly about 15,000 t per year). This is because a substantial part of fish exports are from aquaculture (e.g. tilapia).

Sanitary certification

Ecuador is presently listed in the Annex II of Commission Decision 2006/766/EC establishing the lists of third countries and territories from which imports of fishery products are permitted[38]. The nominated Competent Authority is the "Instituto Nacional de Pesca (INP)", established by Acuerdo No. 06-177-A[39], which gives officially the competency to the INP to create and maintain a register of the persons (physical or legal) authorised to export fishery and aquaculture products to the EU. In October 2008, Ecuador had 61 approved processing plants (including 34 which are used for farmed aquaculture products) and 11 approved freezing vessels.

According to Article 2 of the above-referred text, the persons applying to be listed have to comply with a national action plan and technical protocols, and accept controls to assess the compliance to them. It is indicated that technical protocols are based on the regulations for the access to the EU market, including subsequent amendments and other technical legal texts.

According to Article 3 INP is appointed as responsible of the sanitary control plan (PNC[40]) and the verification of all facilities involved in the fishery and aquaculture production chain intended for export to the EU.

[38] FVO 2007. Final report of a follow-up mission carried out in Ecuador, 30 July to 8 August 2007. DGSANCO/2007-7295-MR Final

[39] Registo Oficial No 309, 29 June 2006

[40] Plan Nacional de Control: para el ofrecimiento de garantías oficiales respecto a la exportación de productos pesqueros y acuícolas de la Republica del Ecuador a la Unión Europea. Instituto Nacional de Pesca. Ministerio de Comercio Exterior, Industrialización, Pesca y Competitividad. 6 September 2006, 56p.

The fish inspection and certification function is staffed by 25 inspectors based in Guayaquil and 3 vehicles for transport to cover the various locations, Manta in particular. All inspectors received additional training in HACCP, food hygiene inspection skills and risk analysis through the EU funded ExpoEcuador (ALA/2003/005-703). INP has indicated that a re-structuring is expected in the near future, which would result in increased capacity in terms of sanitary control.

Establishments and freezer vessels are inspected twice a year in the case of full compliance, and four times a year in the case of partial compliance. Other fishing vessels are inspected on average once/year, and are also subject to spot checks when they land fish. When non-compliances are observed, the CA decides on whether certification is to be suspended based on observations made. The establishment is subject to a new inspection after approx. 15 days in cases of serious deficiencies to assess whether corrective measures have been taken. Continued non-compliance leads to a de-listing.

Export sanitary certification is only granted in respect of inspected and approved establishments and vessels. The application form for export certification requires the supplying vessel to be specified. The inspector then checks that it is listed. If it is not Ecuadorian flagged, the inspector also checks to confirm that a) the flag state is permitted to supply fishery products to the European market[41] and that the supplying freezer or factory vessel is approved by that state. In the case of the foreign flag vessels that operate in association with Ecuadorian companies, INP has been given the authority to inspect these vessels as part of the process of association.

The DG SANCO mission to Ecuador[42] noted some deficiencies in 2007 in relation to the supply of raw material to canneries. These concerned the supply/import of raw material from non-listed countries and/or non-listed vessels. Based on consultations with the INP, corrective measures have been taken and a thorough check is made on the origin of imports and landings by foreign flagged vessels.

Considering the landings of vessels which supply other products destined for export to the EU, (such as tuna, and other large pelagic fish) the INP is currently in the process of developing rules and procedures for the approval of vessels and landing sites, including the training of fishermen.

RFMO catch certification

Ecuador is a contracting party to the IATTC, which implies adherence to the adopted management measures including the requirement to establish a bigeye tuna statistical document program (IATTC Resolution C-03-01) where all imports and re-exports of bigeye are to be accompanied by a Statistical Document[43]. However, this has not been implemented in Ecuador but this appears to be because landings of frozen bigeye tuna are limited and thus the requirement is ignored. It is important to note that landings from purse seine and pole-and-line destined for cannery supply are exempted, which form the bulk of landings in Ecuador. In the case of longline fisheries, the landings of fresh bigeye tuna are not yet applied, pending the preparation of specific guidelines.

Ecuador has ratified the Agreement on the International Dolphin Conservation Program (AIDCP), a legally binding multilateral agreement. The IATTC provides the Secretariat for the program and a system for the certification of “Dolphin Safe Tuna” has been implemented, which is issued by the competent authority in Ecuador (Subsecretaría de Recursos Pesqueros –

[41] Commission Decision of 6 November 2006 establishing the lists of third countries and territories from which imports of bivalve molluscs, echinoderms, tunicates, marine gastropods and fishery products are permitted

[42] FVO 2007. DGSANCO/2007-7295-MR Final

[43] Ecuador is also a party to the Permanent Commission for the South Pacific (no mandate for the management of fishery resources) and is one of a group of countries that is promoting the establishment of the South Pacific Regional Fisheries Management Organization.

SRP). In order to issue this dolphin safe certificate, the requirement is that tuna must not have been caught by purse seining with sets on dolphins (fishing by purse seining involves sets on floating objects (or FADs), sets on dolphin associated tuna and sets on unassociated schools of tuna). Purse seine is the gear mostly associated with dolphin bycatch and mortality. To demonstrate that this requirement is met in respect of a member country, the exporter must submit a catch certificate or other documentation which identifies the catching vessel and certifies compliance with the requirements and that the vessel is not listed by the IATTC as a non-compliant vessel. Providing these conditions are met the certificate is validated[44].

CITES certification

Ecuador ratified the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) on 7 January 1975[45]. An estimated 500 species of fauna and 4513 species of flora, found in Ecuador, are listed in the CITES appendices. In relation to Ecuador there are a few marine fish species listed in the Appendices to CITES (not considering various whale, dolphin, and turtle species). In Appendix II, these are the white shark (*Carcharodon carcharias*), basking shark (*Cetorhinus maximus*), and whale shark (*Rhincodon typus).* There are two species of sawfish *(Pristis pristis* and *Pristis pectinata*) listed in Appendix I. The sea cucumber (*Isostichopus fuscus*) is listed in Appendix III (listed on 16/10/2003).

The main legal instrument for the conservation of endangered species is the Law on Forests and the Conservation of Natural Areas and Wildlife[46]. The TULSMA[47] regulatory framework contains some specific references to CITES in the IV book (biodiversity). In the case of the Galapagos there is a specific law concerning its conservation[48]. Although the CITES applies to Ecuador and has done so for 33 years, implementation has not been effective as procedures are still to be clarified. A tender has recently been published (18/09/2008) by the Ministry for the Environment, which deals with the formulation of specific regulations in relation to CITES to be developed in close consultation with all relevant stakeholders

Of the above-mentioned species, the sea cucumber is the only species that is a direct target of fishing. Export permits are required which is issued by the management authority (Galapagos National Park Authority – Marine Ecosystems) only if the specimens are legally obtained.

The National Plan of Action for Sharks was developed in response to concerns on the level of by-catches, following the recommendations by FAO and CITES (CoP 9 & 10). The monitoring programme established for this purpose includes the issuing of export permits certifying that shark catches have been taken legally (only as by-catch and in conformity with management measures). The issuing authority is however the Fisheries Administration (SRP) in this case.

CITES controls are coordinated by the Ministry for the Environment – Unit for Wildlife and Fragile Ecosystems, which is the nominated, CITES Management Authority. For marine species this is delegated to the Regional Biodiversity Unit in Guayaquil under the same ministry. In the case of the Galapagos fishery for sea cucumbers, this is the competence of the National Park Authority, also under the Ministry for the Environment. There are numerous scientific authorities that are listed for Ecuador, including the National Fisheries Institute (INP) on matters concerning

[44] It is important to distinguish the “dolphin-safe” label under the AIDCP (purse seining allowed when no dophin mortality) and in the context of the Earth Island Institute (no purse seining allowed), including the participation of various important Ecuadorean companies. This is relevant for example in relation to export to the USA . More detail is provided in section 5.3.3 – Thailand under the heading on “US Dolphin protection measures.

[45] Published in the Official Registry No. 746, 20 February 1975.

[46] Registro Oficial No. 418, 10 September 2004

[47] Registro Oficial por Decreto Presidencial No. 3516, 31 March 2003, Texto Unificado de la Legislación Secundaria del Ministerio del Ambiente

[48] Ley de Régimen Especial para la Conservación y Desarollo Sustentable de la Provincia de Galápagos (RO Nº 278, 18 March 1998)

fishery resources. The Charles Darwin Foundation is also expected to play a key role in relation to marine species found around the Galapagos.

The Fisheries Administration (SRP) in Ecuador is in the process of assuming all responsibilities concerning CITES control of marine species[49], but it is not clear how far this has progressed or when it may take effect. However, due to the limited trade in commercial species listed by CITES, there appears to no great relevance to the IUU catch certification.

5.5.4 Status of Traceability systems

The implementation of traceability systems are required by the sanitary control system and this has been carried out with the supervision of the competent authority (INP). This is also one of the requirements for companies to be included in the list concerning the issuing of certificates of origin by the competent authority (SRP). Some deficiencies in relation to traceability were noted by the DG SANCO mission in 2005 especially in relation to the lack of capacity to ensure that products processed for the domestic market were not exported to the EC. Whilst the INP responded by strengthening controls in this area, there were still notable deficiencies found in the follow up FVO mission in 2007[50]. In particular canneries were found to be importing fishery products for re-export without respecting Community rules with regard to sanitary status of the origin. The case of sourcing raw material from vessels flagged by Vanuatu was quoted (Vanuatu is not on the list of third countries permitted to supply the EC market with fishery products). At the time of the FVO inspection, the Government of Ecuador did not implement a system of official checks to ensure that the country and vessel of origin is approved for supply to the EC, before the issue of the export certificate by the INP. Since this mission, the GoE has submitted guarantees that this issue has been addressed, subsequently accepted by the DG SANCO, but these guarantees have not been audited by the FVO on the spot. The mission has established that whilst INP now makes such checks, further efforts are needed on quantitative cross-checks to identify the possible entry of non-authorised sources of raw material in order to make the system effective against fraud.

Nevertheless, significant improvements in establishing the integrity of supply chains have taken place in the tuna industry in recent years, principally in response to the need to meet the voluntary certification standards for dolphin friendly tuna under the NGO Earth Island Institute. Tuna canneries are therefore able to identify the source (vessel and catch location) of the raw material in each export consignment of final product, suggesting that they should be able to meet the traceability conditions implied in the EC IUU regulation.

Similarly, with regard to supplies of domestically produced and landed fish, the traceability is relatively weak. The FVO mission identified that intermediate traders were supplying export processors, but that they did not have in place systems of traceability to identify the source of their raw material, raising doubts regarding the sanitary conditions at landings. Although landing declarations are verified there are no additional checks to link the exported consignment with the fishery products described on the landing declaration. The INP is working to formalise the listing of approved vessels and landing sites for other fisheries (as well as training of fishermen).

5.5.5 Type and volume of certification required for implementation of the Regulation

Activity 1: Validation of catch certificates from Ecuadorean vessels landing in Ecuador and in other countries.

To maintain the current pattern of supplies to the EC market the Government of Ecuador will need to provide validation of catch certificates from Ecuadorean vessels operating in

[49] Pers. comm. Ing. Guillermo Morán, Subsecretario de Recursos Pesqueros
[50] FVO 2007. DGSANCO/2007-7295-MR Final

Ecuadorean and international waters, and landing in Ecuador. The main target of the certification activity will be the industrial fleet of 87 purse seiners targeting tunas in the IATTC area. However a small pole and line fleet will also need to be covered (four vessels). The long line fleet is also an important supplier to the EC market, with 22 large longliners operating offshore, and 205 other longliners targeting a range of large pelagic fish for export markets (eg. fresh and frozen tunas, mahi mahi, swordfish). There are 215 shrimp trawlers which operate in the Guayas estuary, and supply product to shrimp export packers. In addition, the certification activity will also have to cover some segments of the small pelagic purse seine sector, which supplies fish canners, some of which product is exported to the EC. This fleet comprises 99 vessels.

Activity 2: Provision of statements in relation to export and re-export of processed fishery products (indirect importation to the EC)

The Competent Authority will be required to validate processors statements by 18 major tuna canneries in relation to indirect exports of fishery products to the EC (that is, products originating in other third countries). The main categories of import and re-export apply to tuna which is either landed in Ecuador by vessels flagged by other countries or imported specifically for processing. The total quantity in 2008 was at least 104,000 tonnes. If these are to be re-exported to the EU, the Competent Authority will need to issue "processing statements" in accordance with Article 14 and Annex IV of the IUU Regulation.

Based on the typical landing patterns for the purse seine fleet, the consultants estimate that there will be an annual demand for the issue and validation of about 800 certificates concerning landings from the Ecuadorian industrial tuna fleets[51] in Ecuador. The validation of catches from the long line fleet will also be a significant activity; although the products from this fishery are mainly exported to the US market, this may create an additional demand for several hundred catch certificates per year to the EC market. Shrimp is the other major export commodity to the EC (on average 35% in volume of total exports to the EU). The majority is from aquaculture, but about 1% is derived from the shrimp trawl fishery, which will need to identified and subject to catch certification if it is to continue to be included in the exports to the EC. Although there are exports to the EC market from other fleet segments (eg. small pelagic purse seiners) these are relatively modest and not likely to require significant demand for validation of catch certificates. Whilst there are some landings by tuna purse seine vessels in neighbouring countries, they are only occasional and not part of the substantive trading pattern of the fleet. The demand for validation of catches made outside the country is therefore likely to be minimal. **Activity 1** is therefore expected to require certification of perhaps up to 2000 landing events per year. Many of these are focused within a limited geographic area around Manta.

Imports in the form of landings by foreign flag vessels, both associated and non-associated, and by reefers[52] constitute on average about 40% of supplies to the tuna processing industry. Exports which contain these products will need to be accompanied by additional statements (**Activity 2**) to verify linkages between the catch certificates and the consignment of processed fishery products. The volume of statements is estimated to be about 1,000, based on the assumption that 40% of total certificates of origin issued (about 2,500) are imported for re-exports. This is a minimum estimate as consignments may be composed of many sources of supply. These will be issued in respect of about 18 export establishments. It is feasible that industry will opt for the use of raw material caught by Ecuadorian flag for the EC supply chain, avoiding the additional administrative burden that use of imported raw material would entail. This is considered feasible as good traceability systems are generally in place. Other export sectors have little or no dependency on non-Ecuadorean sources of raw material; tuna will be the only commodity requiring the issue of Article 14/Annex 4 statements.

[51] Concerns 42 larger purse seiners (210 landings), 45 smaller purse seiners (360 landings), and 22 industrial longliners (220 landings).
[52] About 15,000 t of tuna raw material are imported by reefer vessels per year.

The number of landings by the foreign flagged tuna vessels is estimated to be around 140[53] on an annual basis. The competent authority may need (if it is requested) to provide port state controls for these landing events, and provide information to the flag state for validation of the certificates.

5.5.6 Technical and administrative capacity for catch certification

Validation of catch certification (Activity 1)

In Ecuador there is a well established MCS system in place to cover various types of fishing activity. This consists of a fisheries landing control structure that covers the continental coast. Fisheries control does not have any at sea capability, but at sea inspections and operations are carried out in collaboration with the Maritime Authority and Coast Guard.

Observer programmes play an important role in monitoring the tuna purse seine fleet, including the IATTC observer programme for larger vessels and PROBECUADOR for smaller purse seiners, which is in the process of being implemented. A system for the monitoring of vessels by satellite (VMS) is also being implemented as required by the Maritime Authority and progress on implementation has been good with 72% of all vessels larger than 20 GRT having installed a tracking device as of 30 Nov. 2008. The system is under the responsibility of Maritime Authority, but a collaboration agreement is in the process of being established with the Fisheries Administration (SRP), giving access to the system.

As a result Ecuador has in place the key components for validation of catch certification from its main industrial fishing fleet. These include a clear regime for registration and licensing of fishing vessels, both national and foreign flagged, and a well-functioning fisheries control system, which will shortly comprise functional VMS on all fishing vessels above 20 GRT, observers of tuna vessels, and a system of landing controls, monitored by inspectors on the spot. The existing system of landing controls may need to be strengthened in relation to landings from smaller vessel (particularly smaller long liners will have to brought within a stricter controls). This work is being undertaken anyhow as part of the planned efforts by the sanitary authorities to introduce procedures for inspection of fishing vessels and landing sites.

Similarly the small pelagic fishery and shrimp sectors will also have to have closer supervision of activities and landings for validation of catch certificates. Investment in the validation of certificates for marine shrimp which comprise such a small proportion may not be worthwhile, especially considering the low IUU risk in this fishery. It may be easier to ensure that this product does not enter the EC supply chain.

Notwithstanding a focused and selected extension of landing controls, given that this basic control infrastructure is already in place, the main additional requirements for implementation of the regulation in respect of Ecuadorean vessels will be:

- promulgation of the necessary regulations to define the catch certification system, covering procedure, forms, responsibilities, penalties etc
- strengthening capacities of existing controls implemented by the Service for Fisheries Control under the Directorate General of Fisheries, including increasing number of port inspectors and training in implementation of the scheme
- since there is no single electronic database of landing declarations, there is a need to strengthen the system of fisheries data communication and management to allow the competent authority to link certification to MCS data. Associated with this is need to specify the criteria for validation of certificates (cross checking of declarations with MCS data).

[53] 100 landings by 40 associated purse seiners, 18 landings by non-associated purse seiners, and 20 landings by 4 associated longliners.

Statements in relation to imported and re-exported fishery products (Activity 2)

Ensuring the validity of statements regarding the processing of imported tuna in consignments which are exported will be an important requirement, which will require the Competent Authority to have the undertake cross checks to assure the validity of traceability systems and the integrity of the supply chains leading to the EC market. Following criticisms of the FVO in 2005 and 2007 regarding non-compliant origins of tuna entering fish canning establishments, and consigned to the EC, the Government of Ecuador has imposed new conditions on the industry to eliminate non-authorised sources of supplies, and to confirm this at the point of export certification.

It is relevant that the period has also corresponded with the introduction by the tuna sector of the dolphin friendly certification scheme of the Earth Island Institute, and the implementation of the IATTC requirements regarding certification of catch method and location for tuna, also a dolphin protection measure, with certificates validated by the SRP. Therefore, in relation to the tuna sector, it appears that there are already in place systems of traceability, which are verified by the sanitary Competent Authority (the INP). However, these checks will need to be strengthened in relation to cross check for the Article 14 processing statements, to apply data from customs (regarding imported consignments), INP sanitary inspection and the SRP to confirm that there is no unauthorised external sources of fishery products (for example from IUU fishing) entering the consignments destined for the EC market.

Although it is not mandated by Regulation 1005/2008, if Ecuador is requested to provide port state controls in relation to foreign flagged vessels, the Service for Fisheries Control under the Directorate General of Fisheries has adequate technical capacity to provide data for validation of catch certificates. The requirement is simply to confirm the identity and status of the vessel, and the quantities and species of fishery products landed. This data is already collected under existing controls on landings by foreign flagged industrial vessels.

5.5.7 Official checks on origin

Although the new tuna traceability systems are not verified by the FVO, it appears that there are now in place good levels of traceability in the tuna sector to ensure that non-compliant sources are excluded from the EC marketing chain.

However, the integrity of the supply chain in the sectors other than canned tunas is not yet guaranteed, although plans are in place to limit landing sites for EC supply, and implementation of checks to ensure that only vessels complying with sanitary conditions are allowed to supply. These same systems will greatly contribute to the capacity to implement official checks on the traceability of the supplies consigned to the EC market.

5.5.8 Ecuador Needs assessment

The findings of the mission to Ecuador show that the implementation of a catch certification scheme in line with the IUU regulation (EC Nº 1005/2008) will not pose substantial problems for the Competent Authorities of this third country. The following activities and means will be required to ensure the result of the effective implementation of the catch certification scheme in relation to the situation in Ecuador.

Activities	Means required
Establishing statistical system to follow fishing activity	Hardware/ software; software development; recruitment/ training of database managers/ operators; recruitment/ training of data samplers
Strengthened inspection and control capacity by Competent Authorities	Recruitment of staff, training in certification scheme, traceability and quantitative analysis of enterprises
Design and implementation of certification and Annex IV documentation systems	Legal drafting of detailed procedures regulations

5.5.9 Expected impacts of catch certification on illegal fishing

Given the generally low risk of IUU fishing activities in Ecuadorian waters, particularly in relation to products that are exported to the EU, the IUU catch certification system is not expected to impact significantly on the level of illegal fishing or resource conditions. There are therefore no direct benefits identifiable to Ecuador. As with Thailand, the reliance of the tuna sector on imports to supplement raw material for exports will require cooperation with other third countries as flag states, and there is a risk that a lack of capacity for implementation by these states will result in tighter supply of raw materials, resulting in some increased costs of inputs to the tuna sector.

Indirect benefits may include reduced costs to enterprises due to improved quality and stock control associated with the introduction of traceability systems. In the longer term by implementing the catch certification system Ecuador will be able retain access to the EC market.

5.6 Senegal

5.6.1 Fishery sector profile

The EEZ of Senegal includes demersal finfish species, crustaceans (shrimps) and small pelagics (sardinella). Some migratory species (swordfish and tuna) are also present seasonally. The demersal fisheries resources are assumed to be in a very poor condition.

The domestic fishing fleet of Senegal can be separated into two distinct categories: the industrial fleet and the artisanal fleet. According to the fishery regulations, the artisanal vessels are defined as open deck vessels using passive gears and keeping catches on ice. The industrial vessels are all vessels that do not match this description. The number of artisanal vessels is not known precisely. It is assumed to comprise between 13,000 and 15,000 vessels ranging from small canoes to vessels larger than 20 m with outboard engines. Although most of the artisanal fleet operates on the basis of daily trips; the largest vessels can stay at sea for up to ten days. In 2007 the industrial fleet included 126 fishing vessels consisting mostly of trawlers targeting shrimps, cephalopods and fish resources located in the inshore and offshore areas of the EEZ. About 60% are freezer vessels and the others take ice onboard. The Senegal fleet also includes 7 tuna vessels (pole and line, longliners) and 4 small pelagic purse seiners.

Foreign flagged fishing vessels operating in the EEZ of Senegal include 3 vessels from Cape Verde and Gambia licensed under the bilateral reciprocal fishing agreements in force. In 2007 this also included 9 European pole-and-line vessels licensed under a private arrangement. Apart from these special cases, there are no other foreign vessels fishing in the Senegal EEZ under private arrangements.

Landings in Senegal were estimated at 372,000 t in 2006 for a first sale value of 185 M€. The artisanal fleet represents 90% of total catches and 75% of the total value. The bulk of the catches (67%) comprise small pelagics species for the local market. Production of the industrial fleet was estimated at 32,000 t in 2006. Demersal catches are comprised of demersal fish (sole, red mullets), octopus and shrimps. Landings of tuna were about 6,500 t in 2006.

While virtually all landings from the industrial fleet are for export (directly or after processing), the catches of the artisanal fleets are mostly sold for consumption in the domestic or sub-regional markets. However some of the high value fish species caught by artisanal fleets is exported to the EU, either fresh or whole frozen. These exports are estimated to be about 32,000 t per year, i.e. equivalent to quantities exported by the industrial fleet.

The total value of exports of fishery products from Senegal totalled EURO 236 million in 2006, around 20% of total national exports. Fishery products are the single largest commodity type exported from the country and the European market is the main outlet for exports. In 2007 the EU absorbed 48% of exports in terms of volume, worth approximately 70% of total value. The other export markets are in African countries (39%) and Asia (9%). Exports to the EU are dominated by frozen whole products (molluscs 24% in value, fish 20%, shrimps 12%), fresh fish (22%), fish fillets (18%). Exports of canned tuna represented only 4% of total in 2007. About two-thirds of exports in terms of value are shipped by sea from Senegal to the EU, and one-third by plane (fresh fish from the artisanal fleet mostly).

There are no detailed statistics on imports of fishery products into Senegal. The local industries reportedly import some quantities of raw material from neighbouring countries, including fish, cephalopods and small pelagics from Mauritania and occasionally from foreign vessels calling in at Dakar harbour. Imports of fish from the EU included approx. 2,000 tonnes of tunas landed directly by EC vessels in Dakar. However imports of raw material for re-export (either processed or unprocessed) is not so far a major economic feature of the Senegalese fishery sector.

5.6.2 Fisheries management and controls

Fisheries management system

Fisheries management is carried out through input control measures such as licensing, with additional measures on gears, areas restrictions and fishing periods. However, this concerns only the industrial fleet operating in the EEZ. Fishing in the EEZ of neighbouring countries is not subject to particular types of authorisation, but a special permit is needed to fish in the high seas for tuna species regulated by RFMOs of which Senegal is a party (ICCAT, IOTC). Although the regulatory framework imposes fishing permits for the artisanal fleet, the Authorities are still in the process of registering artisanal vessels to allow for a control of fishing capacity. The activities of the 13 000 artisanal vessels remain largely unregulated.

Vessel registration

The attribution of the Senegal flag to fishing vessels is under the responsibility of the “Direction de Marine Marchande”. Fishing licences are issued by the “Direction des Pêches Maritimes”. A central register of the industrial fleet, using information provided by these two authorities was formally created in 2006 and placed under the responsibility of the “Direction de la Protection et de la Surveillance des Pêches (DPSP)”. Procedures are mostly manual. There is no real-time updating of the central register.

The Government has allocated EUR1.7 million over 2006-2009 for a national plan to register the pirogues, supported by the EC via the STABEX funds. As mentioned above, the registration of artisanal vessels is still ongoing. According to the program, registration will be completed by the end of August 2009.

MCS system

The monitoring framework for the industrial fleet includes a VMS system operated by the DPSP (effective from 2006). Apart from this, control is rather weak. There is no compulsory submission

of logbooks and no boarding of national vessels by observers. Furthermore, the scope of the legal framework is limited to fishing activities in the EEZ and consequently does not cover the activities of Senegalese vessels outside the EEZ, in the high seas or in neighbouring EEZ. There is some control of landings and fishing gears in Dakar, but the information is not cross-checked with other sources. Transhipping operations in the port of Dakar are supervised by the authorities. The DPSP operates a plane for aerial surveillance and 6 patrol vessels (2 of 20 m and 4 of 12 m). However, the low operating budget (EUR 350,000 / year) is hardly sufficient to cover maintenance and running costs. Surveillance of the EEZ was recently supplemented by joint patrols, involving Senegal and Mauritania, deployed by FRONTEX under operation Hera. Although not targeting fishing activities, these operations increased the deterrent effect on illegal fishing. DPSP also operates 10 shore stations equipped with radios and radar to monitor fishing activities in the inshore zone.

5.6.3 Export controls for fishery products

Certification of origin

The Directorate of Foreign Trade, and more recently the "l'Agence Sénégalaise de Promotion des Exportations (ASEPEX)" are the authorities responsible for the validation of certificates of origin issued by the Chambers of Commerce. The Customs check the presence of the certificates and countersign them. The mission found that there is a considerable level of misunderstanding in these authorities regarding the role of certificates of origin in the ACP-EU fish trade, and a lack of understanding of the conditions associated with their issue.

The only documentation required by the ASEPEX for the delivery of the certificates of origin for the products certifying the product as "wholly obtained" is a commercial invoice of the Senegalese exporter to the European importer. There is no requirement to provide information on upstream traceability, which would normally determine the flag of the ship and the composition of its crew. The authorities in charge of fishing are not involved in the process of validation of these certificates of origin. The procedures need to be revised in the short term to bring them into line with international standards in this respect. Although Senegal is a signatory of the Kyoto Convention, it has not ratified Annex K on certification of origin.

Under present conditions, Senegal is not in a position to implement validation of catch certificates unless these basic checks on origins are introduced. On the other hand, the finding suggests that the revision of procedures for the certification of the origin will be able to benefit from the implementation of a catch certification system.

Sanitary certification

Senegal is presently listed in the Annex II of Commission Decision 2006/766/EC establishing the lists of third countries and territories from which imports of fishery products are permitted. The nominated Competent Authority is the "Ministère de l'Economie Maritime (DITP)". In October 2008, Senegal had 67 approved processing plants and 84 approved freezing vessels.

An FVO mission in 2004[54] found numerous and serious shortcomings in the official controls, which presented a grave risk to EC consumers. Senegal managed to avoid a ban or safeguard measures, by responding rapidly with a plan of corrective actions, supported by technical assistance from the European Commission (DG Fisheries and Maritime Affairs) and the ACP-SFP Programme. The CA remains chronically under-funded (budget EUR 33,000 per annum) and lacks equipment and vehicles. This was confirmed in a follow up report by the FVO in

[54] Report concerning a mission by the FVO to Senegal from 7 to 15 September 2004 concerning the conditions pertaining to the production and exportation of fishery products are to the European Union, Food and Veterinary Office, DG SANCO, European Commission, 2007 Ref DG/SANCO)7152/2004-RS

2007[55], which found that whilst there had been much improvement (risk to consumer health was unlikely), there were still serious concerns raised by the weakness of the sanitary control system, particularly in relation to the early stages of the production chain (vessels and landing sites) and lack of accreditation of laboratories.

RFMO catch certification

Senegal is a contracting party of the ICCAT and IOTC. It is also currently trying to obtain full membership to the WCPFC. In the Atlantic, Senegalese vessels fish for tuna and related species using pole-and-line and long lines (some industrial trawlers have been re-converted recently). In the Indian Ocean, Senegalese vessels fish for tunas with long line. The Senegalese authorities are thus required to validate catch documents concerning the trade in the relevant species. However, it seems that there is some confusion regarding the nature of this document and the conditions for its issue. Senegal has nominated the DITP as the competent authority to validate these documents, comparing this document to the sanitary certification. The DITP signs the document, but without having the means of checking the legality of the operations in the absence of information from other Directorates within the MEM (e.g. DPM, DPSP). The procedure for validating these documents needs to be re-examined, and where feasible (in relation to the species covered) integrated with the catch certification system to be introduced under Regulation 1005/2008.

CITES certification

The overall Management Authority for CITES certification is the “Direction des Eaux, Forêts, Chasses et de la Conservation des Sols”. Although there are a number of marine species listed in CITES Appendices I and II, the fisheries management authorities are not informed of any demand for certification in relation to trade. This was confirmed as there does not appear to be any export of CITES protected species from Senegal, based on export statistics of CITES.

5.6.4 Status of Traceability systems

Traceability of landings from industrial vessels is largely in place. Landings are inspected on arrival at the quayside, and are the subject of health certification at that point, which follows the product until export.

Since the FVO mission of 2004, the sanitary control system has been strengthened significantly with controls over landings from the small scale sector with a focus on improved traceability. Landings for exports are restricted to 8 pilot sites (these 8 sites concentrate about 90% of the landings). Each landing event of a pirogue is inspected, and a health certificate issued at first sale, which will identify the vessel and which will follow the product until export.

The DITP has also intervened in order to strengthen the control of imports and landings from foreign flagged vessels. Before the Decree of 2007, there was no effective sanitary control of imported fishery products which were not intended for domestic processing. The new Decree introduces the requirement of a notification period for imports to allow inspection of the products. It also requires the presentation of a health certificate validated by the authorities of the establishment or vessel (or representative) if the product is presented in a processed form. If the fishery products are in bulk, or unprocessed, the DITP will certify the health conditions of the product by making sure that the ship in question was approved by its competent authority (if necessary for export to the EC). This way, by ensuring the traceability to establishments and vessels approved for the EC market, the sanitary conditions of imported fishery products can be assured.

[55] Report on a veterinary mission carried out in Senegal by the FVO from 17 too 27 April 2007 to assess the conditions in which fishery products are produced and exported to the European Union, Food and Veterinary Office, DG SANCO, European Commission, 2007 Ref DG/SANCO)/2007-7511-RS

5.6.5 Type and volume of certification required for implementation of the Regulation

Activity 1: Validation of catch certificates from Senegalese vessels landing in Senegal and in other countries.

Artisanal and industrial vessels extend their fishing areas into the EEZ of Mauritania, Gambia, Guinea Bissau, Guinea, Sierra Leone and Liberia. In the case of artisanal vessels these activities are largely unregulated, either transhipping at sea, or landing in Senegal.

Activity 2: Provision of statements in relation to export and re-export of processed fishery products (indirect importation to the EC):

Imports for re-export are limited and this is not expected to be a significant activity so far, but shortage of supply from domestic sources may increase the need for sourcing raw material on the international market in future.

Assuming that 126 industrial vessels land on average once/month, and that the EC exports from small scale fisheries are derived from vessels which make an average landing providing 1 tonne of exports (3,200 vessels with average 10 trips /year), this suggests an annual volume of certification under **Activity 1** of about 1500 certificates from industrial fisheries and 32,000 from small scale fisheries. There could be some (illegal) transhipment at sea, with Senegalese vessels receiving fish from other foreign flagged vessels, potentially operating illegally in the zones of West African countries. Whilst there is anecdotal evidence that some of the catch from small scale vessels is consigned to the EC market, it is not possible to establish a quantitative link. It is not therefore possible to assess the level of catch certification activity associated with this fishery.

As noted there is a small quantity of imported material, including fish, cephalopods and small pelagics from Mauritania and occasionally from foreign vessels calling at Dakar harbour. Imports of fish from the European Community include approximately 2 000 tonnes of tunas directly landed from EC vessels in Dakar. Although limited in quantity, this might comprise of some 200-300 containers of re-exported products each year for certification under Article 14/Annex 4 that will be required (**Activity 2**).

In addition, with regard to the landings from foreign vessels, there are 3 vessels from third countries (Gambia and Cape Verde) and 9 European pole and liners licensed under a private arrangement. A number of other EC vessels discharge into Dakar as part of their regular fishing campaigns under private arrangements. If the Government of Senegal is requested, there will be a need to undertake port state controls for these vessels.

5.6.6 Technical and administrative capacity for catch certification

The current organisation of the Ministry responsible for Fisheries has spread the MCS responsibilities amongst four different directorates: the “Direction de la Marine Marchande (DMM)” responsible for attributing the flag and controlling compliance with maritime rules (security, crew), the “Direction de la Pêche Maritime (DPM)” responsible for issuing licences, management measures, collection of data on catches and effort, the “Direction de la Protection et de la Surveillance des Pêches (DPSP)” responsible for surveillance and control of the activities of the fishing fleet, and the “Direction de la Pêche Continentale et de l’Aquaculture (DPCA)” with responsibilities equivalent to that of DPM. Another directorate (Direction des Industries de Transformation de la Pêche) is the competent sanitary authority for Senegal which *inter alia* enforces traceability systems from landing to export. The identification of the administration potentially responsible for validating the catch certificates is not straightforward. There is a need for clarification of institutional responsibilities in this respect.

There is no tradition of exchange of information between these directorates, and consequently no centralised availability of data necessary to validate information of the activities of the fishing

vessels flying the national flag. This situation is compounded by the lack of structure within the Ministry tasked with technical coordination at higher level in the organogram of the Ministry. The main challenge faced by the Senegalese authority will probably be to design a proper organisation of its various technical directorates and to establish effective and efficient procedures, which integrate catch certification, in order to make available, in near real-time, information on the activities of the national fleet. It will require political will to carry out the necessary re-structuring.

5.6.7 Official traceability checks required for catch certification

There is still a need for further strengthening of the system of traceability. The control of product import flows (to monitor imports and re-export, and ensure that import duties are discounted) falls under the Customs Authority. Senegal does not have a system of processing bonded products. Customs Authority does not the have the expertise to undertake cross checks with regard to exported products (for example to correlate inputs and output factors in transformation). The DITP, within the framework of the HACCP control plans, does check the records, but not in the context of quantitative assessments to identify non-authorised inputs. There is no adequate statutory text covering this area. The promulgation of a new text specifying in more detail the traceability requirements and the controls to be applied will be necessary to give a legal base for the validation of the certificates envisaged in Appendix IV of Reg. (EC) 1005/2008. This could provide for synergies between the sanitary traceability and the traceability required for the validation of catch certificates.

5.6.8 Senegal Needs assessment

With regard to the measures for catch certification and follow-up procedures, the conclusion is that Senegal will only be able to comply with the requirements after a certain number of reforms have taken place. The implementation of measures considered under Regulation 1005/2008 may require some financial support, but will be primarily a question of reforming the current organisation of the technical Directorates of the Ministry. Technical assistance is likely to be required if these reforms are to be undertaken in reasonable time.

On the basis of this new organisation, the main activities will be to update the regulatory framework and to design procedures for validation of catch certificates. Senegal will most probably need considerable technical assistance in this respect (legal expertise, MCS expertise) that could be brought in through a dedicated programme. The following activities and means will be required to ensure the result of the effective implementation of the catch certification scheme in relation to the Senegal situation.

Activities	Means required
Adaptation of the legal framework	Legal drafting of a new or revised “Code des Pêches” (Law) and implementation rules (Décrets et arrêtés) incorporating at least: application of regulations to activities of Senegal vessels outside the EZZ with associated licensing regime, compulsory and timely submission of logbooks, existence of the catch certificate (for both import or export)
Registration of artisanal vessels	On-going process. Should focus primarily on priority on artisanal vessels landing for export (NB. This activity is already supported by COM STABEX funds)

Exchange of information between Authorities	Set up of an electronic information system for real-time exchange of information between the various Directorates in charge and the regional delegations (already supported by COM STABEX). Should prioritise sharing of information on licensed fleet.
Strengthening controls on landings	Deploy additional inspection resources for inspection of vessels upon landing: in industrial ports and in the designated export-approved artisanal landing sites. Develop catch validation procedures
Information / training	Organise seminars for information on the requirements of Reg. 1005/2008 and training sessions on procedures to be followed for catch certification
Establish cooperation with neighbouring countries	Develop exchanges of critical information with Authorities in charge of control in Guinea Bissau, Guinea and Sierra Leone (already done with Mauritania)

Adaptation of the regulatory framework: the regulatory framework is insufficient in its present form. It will be necessary to adapt it so that the new regulations are completely transparent, consider the role of third country vessels and supplies, and can support the inspection work undertaken by the agents of the Senegalese administration. Among the adaptations envisaged is the need to control the activities of the Senegalese ships outside the EEZ, the introduction of an obligatory logbook scheme, declaration of entry/exist to the EEZ, and a more formal authorization procedure for fishing in the high seas (the current arrangement is not well founded in law). The regulation should also consider the need to account for the raw material in the processing establishments, as well as the requirements for presentation of catch certificates at the time of import or export of fishery products, so that Customs can inspect the papers at the time of the product being taken out of bond. Due to lack of capacity in the administration this adaptation of the regulatory framework will require legal technical assistance.

Control of the artisanal fisheries capacities: The Senegalese Authorities have been trying to manage the sector since the beginning of the year 2000. The current open access to the resource carries high risks of unsustainable fishing as well as undermining inventory control, safety at sea, labour law, and sanitary controls. To ensure that the artisanal fishery is subject to catch certification the current registration process will need to be completed first.

Nomination and organisation of the competent authority: The current organisation of the Ministry means that there is very little information exchanged between the various directorates. There are no formal procedures for information exchange. Each directorate holds data useful for the validation of catch certificates. Contrary to the finding in other third countries, for which the designation of the future competent authority in this field is obvious, there is no obvious choice in Senegal and it is essential that only one directorate be chosen and designated as the competent authority. There are two solutions: either the creation of a directorate which concentrates on all items relating to the maritime fishing (management, control, statistics), or a directorate created with an information system based on new technology which makes it possible for each recipient to update information under its administration or to consult the information managed by others. The two solutions are not exclusive, since a directorate with a widened mandate will need to manage its flows of information. The creation of a fisheries information system is being currently studied, with financial support from the EC. Audits have started to examine in detail the information held by each directorate and are looking to define a functional framework for a future system. This program could profit from complementary external expertise within the framework of the implementation of Regulation 1005/2008 in order to make sure that the future data requirements for validation of catch certificates are taken into account.

Reinforcement of the inspection of landings: There needs to be improved control and validation of the declarations made by vessels. To do this requires the introduction of a declaration system with a standard logbook. It should aim at establishing procedures for validation of the data while seeking to cross-check three types information from independent sources: the logbook, VMS data and data on the landings. It will also be necessary to reinforce the capacities, through training courses, of the inspectors controlling landings from vessels.

Information/formation: During discussions in Senegal it was noted that the Community legislation relating to trade and agreements between Senegal and the EC are known only to a minority of the senior officers of the administration. The inspectors who are required to undertake the work are poorly informed of the rules to be respected. In particular there was confusion regarding the rules of origin governing commercial exchanges with the EC. It is therefore essential to organise information seminars for the public and private persons involved in the fisheries sector in Senegal and to follow this up with more detailed training when the operational rules are established and about to be implemented.

Implementation of co-operation with the surrounding countries the area: Senegalese fishing vessels operate in a number of different third country EEZs. It will be essential to set up co-operation procedures between the various authorities concerned to enable the validation of catch certificates by flag states. This will include checks to confirm that a vessel fishing in an EEZ area of a neighbouring country is properly authorized (i.e. has a valid licence), and if necessary, to make sure that it has respected the rules of conservation in force. In the case of Senegal, the ideal office for this co-operation could be the Commission Sous-Régionale des Pêches (CSRP) because its members include all the countries potentially concerned. The CSRP has already planned to jointly update a register of the ships licensed in the area, but has not completed the project. The institutional reform underway in the CSRP could give a new impetus to this organisation which undoubtedly has a large role to play in the control of the fisheries. Failing this, Senegal will have to establish bilateral cooperation, as is already the case with Mauritania. It will be necessary to conclude negotiations with countries south of Senegal such as Gambia, Guinea Bissau, Guinea, Sierra Leone and even Liberia.

5.6.9 Expected impacts of catch certification on illegal fishing

While IUU fishing by foreign fleets in the national EEZ is not considered to be of significant importance, IUU fishing by Senegalese vessels both inside and outside the EEZ already has major social, economic and environmental consequences. It is now acknowledged that the open access regime that is in fact in force for the artisanal fleet has significantly contributed to the overexploitation of fisheries resource in the EEZ. Degradation of fisheries resources has been compounded by the lack of enforcement of regulatory measures on gears and closed areas by the industrial fleet. The issue now is that the overcapacity problem of Senegal is affecting neighbouring EEZs. The decrease in productivity of fishing resources also encourages other types of illegal activities such as transhipment at sea (artisanal vessels may collect catches from foreign fishing vessels flying other flags and fishing illegally in the sub-region and land the products as Senegalese) or illegal immigration. These illegal activities have also economic, social and environmental costs. A recent economic study estimates that the development of the artisanal sector has a cost to Senegal of approximately EUR 26 million in value added, equivalent to 15% of the value added currently generated by the whole fishery sector. This estimate does not take into account the presumably negative impacts of increased fishing effort in the neighbouring EEZs.

This situation is not new. Donors, including the EU, support Senegal to help put an end to this open access regime. However, progress has been very slow so far. The entry into force of Reg.1005/2008 in January 2010 may provide an incentive to speed up this process of reform of the fisheries management system. The catch certification system is therefore expected to have a major impact on illegal fishing in the region.

5.7 Mauritius

5.7.1 Fishery sector profile

The National Mauritian fishing fleet includes approximately 1 570 artisanal open-deck vessels and 35 semi-industrial and industrial vessels. The artisanal fleet exploits the resources located in the lagoons and in the nearshore oceanic areas. Catches of this fleet are estimated at 690 tonnes (2007) essentially placed on the local market. The 35 larger vessels exploits predominantly the Banks Fisheries located over the deep-sea shoals present in the Mauritian EEZ. Catches are frozen onboard or kept in ice. They include reef species such as Lethrinids and Lutjanids. While most of the catches are placed on the local market, small quantities are exported fresh to the neighbouring island of La Reunion. The number of Mauritian vessels specialised on large pelagics is approximately of 10, including small surface longliners that targets swordfish in the vicinity of Mauritius, and 2 surface longliners of more than 24 m with larger autonomy. Overall, catches by the Mauritian fishing fleet are modest. They averaged 9 000 tonnes per year until 2007 when they decreased to 6 500 tonnes.

Mauritius grants fishing licences to foreign interests interested to fish in the EEZ. In 2007, licences were granted under the three fishing agreements concluded with the EC (seiners and longliners for a maximum of 90 vessels), Seychelles (seiners and longliners for a maximum of 30 vessels) and Japan (longliners for a maximum of 50 vessels). The protocol annexed to the fishing agreement with the EC expired in December 2007 and has not been renewed since. Besides fishing agreements, Mauritius grants licences to private interests, essentially Asian tuna longliners. In 2007, 85 foreign longliners have obtained a licence, including 71 longliners from Taiwan, 4 from Malaysia and 2 from Belize. The total number of licences granted fell dramatically in 2008 from around 210 per year over 2004-2007 to less than 100 in 2008. Whilst the expiration of the protocol of agreement with the EC explains most of this sharp decrease, a more restrictive policy for granting licences is also to be taken into account.

The real strength of the Mauritius fishing industry lies in its processing sector. The natural competitive advantages of Mauritius compounded by incentives from the Government fostered the development of a processing sector specialised mostly on large pelagics. In 2007, there were 15 processing companies registered under the Seafood Hub. In 2009, 12 were authorised to export to the EC. The two major Mauritian companies are specialised on tuna canning and tuna loining. They are responsible for 95% of the value of exports from Mauritius to the EC. The raw material processed originates predominantly from Spain, France or Seychelles flagged vessels, with additional inputs under derogations of non-originating material purchased from purse seine fleets operating in the Pacific (mostly from Korea and Taiwan). One of the two companies is seeking to expand its supply sources to Maldives. Most of the raw material is unloaded from the fishing vessels in Victoria (Seychelles) and shipped to Mauritius by reefer (of which one is Mauritius flagged).

The remainder is made of exports of swordfish and various bottom species (less than 1 000 tonnes per year). The fish is obtained from the national fleet and from longliners calling in Port Louis).

Since landings of the Mauritian fishing fleets are low and yield more profit on the local market, the Mauritian processing industry has to source supply of raw material from foreign sources. The two tuna processing units alone need to import approximately 90 000 tonnes of tuna per year.

5.7.2 Fisheries management and controls

The Fisheries Division under the Ministry for AgroIndustry, Food Production and Security, is responsible for the management and control of the fishing activities that fall under the sovereignty of Mauritius (national vessels, foreign vessels licensed to fish in the EEZ, foreign vessels calling in Port-Louis and national processing industries).

The legal framework for fisheries has been thoroughly updated in 2007 with the adoption of a new Fisheries Act (2007). As far as fleet monitoring is concerned, the legal framework includes

provision for granting of fishing licences to both national (incl. artisanal fleet) and foreign vessels, VMS monitoring of all licensed fleet (since 2005), logbook submission and prohibition of transhipment at sea in the EEZ. Foreign vessels, whether licensed or not, calling in Port Louis have to notify the Authorities 72 hours prior to entry. Any unloading operation is subject to authorisation from the Fisheries Department which is granted subject to results of multiple checks on vessel documentation and recent history. According to the Law, any fishing vessel placed on the IUU list of a RFMO cannot be authorised to access Port Louis. Fishing vessels having onboard species under the management mandate of an RFMO are subject to additional checks.

Inwards and outwards flows of fisheries products are also monitored and controlled by the Fisheries Department in coordination with Sanitary Competent Authorities and Custom services. Any person wishing to import fisheries product, for the local market or for processing and reexport, has to obtain an authorisation from the Fisheries Department on a shipment basis. Exports are also subject to a specific authorisation.

Enforcement falls under the responsibility of the Mauritian Coast Guards (Police Forces) and of the Fisheries Protection Service (Ministry in charge of fisheries). Schematically, Fisheries Protection service is in charge of the surveillance of the artisanal sector and of port controls, while Coast Guards are responsible for surveillance of all activities taking place in the EEZ.

5.7.3 Export controls for fishery products

Certification of origin

The conditions governing external trade between Mauritius and the EC are those approved under the interim EPA concluded in 2007 between the EC and the regional grouping ESA/ECA. So far, the rules of origin applying are those detailed under the Cotonou+ regulation without prejudice to specific derogations granted by the Commission (in 2008, it concerned 3 000 tonnes of tuna in cans and 600 tonnes of tuna loins).

Certificates of origin are validated by the customs authorities. Since most of the products exported are manufactured from imported raw material, checks include the submission of the certificate of origin delivered by the Authorities of the country at the origin of the shipment, including the relevant documentation on vessel registration and ownership, vessel flag and crew list On the basis of the documents (plus the bill of lading, invoice and the health certificate), the Customs issue the certificate of origin. According to Customs, the quantities exported are checked against quantities imported (as declared in the EUR1 certificates) to verify, if there is consistency between both declarations, using technical processing coefficients.

All fisheries products imported into Mauritius are cleared under a regular custom regime be they for the local market of for processing before reexport. In particular, imports for processing are not subject to a temporary admission regime.

Sanitary certification

The competent authority is the Division of Veterinary Services (DVS) under the responsibility of the Ministry in charge of fisheries. The Mauritian regulatory framework provides for full equivalence with the Community legislation, including traceability requirements. The DVS undertakes control of raw material imported if they are unloaded directly from the fishing vessels, and monitor imports of raw material by reefers (in that case, the fisheries products are accompanied by a health certificate delivered by the competent sanitary authorities of the port of transhipment, e.g. Seychelles in most cases). In particular, DVS verify if the validating Authority is dully approved and if the vessel is on the list of approved establishments. Staff of DVS undertakes regular checks of Mauritius approved establishments (12 as from Feb. 2009) and check compliance with health regulations of all products exported. Traceability requirements are also enforced.

RFMOs catch certification

Mauritius is a contracting party of IOTC and a cooperating party of CCAMLR.

In both cases, the Fisheries Department is empowered to validate the documentation required. In the case of tuna species caught by the national fleet, the Fisheries department reviews the evidence from landing declarations to validate the export document. When such species have been caught by other fleets and processed in Mauritius, the Fisheries Department verifies the presence of the original catch document and issues the reexport document. As for CCAMLR, Mauritius follows the procedures assigned to Port Sates under the Catch Documentation Scheme which concerns toothfish. In 2007, approximately 2 000 tonnes of toothfish have been transhipped in Port Louis by Australian and French vessels (no other flags appear in the statistics). At the end of the 90's, before the implementation of the scheme, some10 000 tonnes/year of toothfish transited through Port Louis.

5.7.4 Status of Traceability systems

Traceability requirements appear to be properly enforced by the Mauritian processing sector, and even beyond the minimum regulatory standards required by the target markets.

The two major exporting units of Mauritius are modern tuna processing plants selling their products in Europe (UK mostly for cans, Spain, Italy and France for loins). In addition to regulatory standards, they enforce the specific requirements imposed by the buyers of the products. This includes in particular complete traceability of the products, from the vessel at the origin of the catch to the export container, including all details on how and when processed in the factory. Any tuna can or pouch of loin can therefore be immediately traced back to the supplying fishing vessel and the details of its fishing trip.

5.7.5 Type and volume of certification required for implementation of the Regulation

The type and volume of catch certification anticipated in Mauritius is shown in the box below.

Activity 1: Validation of catch certificates from Mauritian vessels landing in Mauritius and in other countries.

The numbers of Mauritian fishing vessels which supply fishery products for trade with the EC is not numerous (a few tens of vessels at the most). This will greatly ease the process of validation of the catch certificates, the numbers of which are not expected to be significant.

Activity 2: Provision of statements in relation to import and re-export of processed fishery products (indirect importation to the EC)

The main demand for catch certification in Mauritius will be in relation to the supplies of raw material from foreign source for tuna canning. Two tuna processing importing 90 000 tonnes of tuna per year, account for 95% of the value of exports from Mauritius to the EC. The raw material processed originates predominantly from Spanish, French and Seychelles flagged vessels, mainly transhipped by refrigerated transport vessels via Seychelles. The main activity will be in relation to maintaining records of catch certificates issued to vessels landing in Seychelles and issue of the Article 14 and Annex 4 statements.

5.7.6 Technical and administrative capacity for catch certification

With regard to Activity 1 (validation of catch certificates from Mauritian vessels landing in Mauritius and in other countries) Mauritius will have no problem whatsoever to validate the catch certificates of the National fleet. The Authorities in charge of the management of the fleet have already enforced a comprehensive monitoring system that applies to all types of vessels, whether artisanal or not. This includes *inter alia* a registration and licensing scheme, VMS, prohibition of transhipments at sea in the EEZ and submission of logbooks. All these elements are under the control of a single authority (the Fisheries Department) who is also the designated authority for validating documentation required by the two RFMO to which Mauritius is party (or cooperating party), namely IOTC and CCAMLR.

Mauritius is seeking to promote export of the most valuable fish species caught by the artisanal fleet. This will require a better organisation of the sector with identification of designated landing site and proper monitoring by the Authorities to ensure traceability. The building of an auction site, supported by the Greek cooperation, is being considered in this respect. This will be used to concentrate landings of the artisanal fleets, while ensuring proper sanitary conditions and traceability.

With regard to Activity 2 (provision of statements in relation to import and re-export of processed fishery products for indirect importation to the EC), compliance with provisions of Art. 14 of Reg (EC) 1005/2008 will be of foremost importance for the Mauritian industry as the vast majority of exports of processed products originate from raw material caught under other Flag States. There is sufficient administrative capacity for this activity.

Whilst Mauritius has historically granted more that 200 licences/year to foreign fishers, many of these do not land in Mauritius. Most of the catch from the EEZ made by the EC and Seychelles tuna purse seiners is landed in Seychelles. Transhipment of large pelagic fish by Japanese and SE Asian longliners takes place in Mauritius, but the majority of this product is destined for Asian markets. Given that the total number of foreign licences granted fell in 2008 to less than 100, Mauritius is not expected to receive significant requests for port state controls of vessels flagged by other countries, in respect of Regulation 1005/2008.

5.7.7 Official traceability checks required for catch certification

Mauritius already enforces traceability requirements as per the European sanitary legislation. The two largest exporting companies have implemented additional internal traceability elements to comply with their Client's requests. Additionally, the customs authorities verify the coherence between origin of raw material imported and product exported in the frame of the validation procedure of certificates of origin.

There are sound systems of traceability in the processing sector, and official checks are made to ensure compliance. In general, the Mauritian competent authorities are not expected to have difficulty in assuring the validity of traceability conditions required for catch certification.

However, the situation could be improved if incoming flows of raw material for the local market and incoming flows for processing were better separated. Implementation of temporary admission procedures could ease identification of both flows since it would create the incentive for maintaining records, for example in relation to levy of local taxes (e.g. VAT). Increased cooperation between the sanitary authority and customs that possess complementary evidence on traceability could also help to strengthen controls in this area.

5.7.8 Needs assessment

With regard to the measures for catch certification and follow-up procedures, the conclusion is that Mauritius has in place all of the key elements for implementation of the measures described by Regulation 1005/2008. The only requirement will be to design and implement the administrative procedures for the catch certification system.

5.7.9 Expected impacts of catch certification on illegal fishing

The main effect of the catch certification scheme will be to provide additional sources of verification on the origin of the raw material used by the processing industry. While the Mauritius industry has a good control over its regular sources of supply originating from fishing vessels operating in the Indian Ocean, it has less control over non-originating raw material purchased through international brokers that source supply from the South Pacific fisheries. The catch certification scheme will help the Mauritius processing industry to be more transparent on the origin of fish commercialised on the European market.

Catch certification will be also another tool at the disposal of Mauritius Authorities to reinforce port controls. Mauritius considers expanding the requirements for a catch certificates to all vessels calling in Port Louis whether the final destination of the products is the EC market or not.

5.8 Mauritania

5.8.1 Fishery sector profile

The National Mauritanian fishing fleet includes approximately 3 600 artisanal open-deck vessels, 99 coastal fishing vessels and 153 industrial vessels, including chartered vessels. This fleet exploits the resources located in coastal waters and the EEZ. Some 270 artisanal open-deck Senegalese vessels and 176 foreign industrial vessels are also licenced to exploit the Mauritanian EEZ.

EC vessels operate in the EEZ under the terms of the Fisheries Partnership Agreement between the European Community and Mauritania, which covers the period 1 August 2008 to 31 July 2012. The Protocol to the Agreements sets out the fishing opportunities. These include EC fishing opportunities under 11 categories of licence, including vessels fishing for crustaceans other than spiny lobster and crab, black hake trawlers and bottom longliners, vessels fishing for demersal species other than black hake with gear other than trawls, freezer trawlers fishing for demersal species, cephalopods, spiny lobster, freezer tuna seiners, pole-and-line tuna vessels and surface longliners, pelagic freezer trawlers, crab fishing and non-freezer pelagic vessels. Many of the fishing opportunities are allocated by the Community to Spain, Italy, Portugal, Greece and France.

The Senegalese artisanal vessels operate under the Mauritania-Senegal fishing agreement which grants fishing rights for up to 300 vessels. This fleet mainly catches small pelagic for the local/regional market. There is a requirement that 15% of the catches be landed in Mauritania.

The registered industrial fleet catches account for about 750,000 tonnes, mainly small pelagic fish (700,000 tonnes), cephalopods (25,000 tonnes) and demersal fish (18,000 tonnes). There is no monitoring of catches from the artisanal sector. Until 2006, the artisanal fleet catches were officially estimated at 20,000 tonnes. Then the estimated catches were re-evaluated at 80,000 tonnes, and a new estimation of 100,000 tonnes is being discussed. Most of the catch from the industrial fleet is frozen on board. Catch from the artisanal fleet is landed fresh, some is iced.

The domestic landings (national vessels and chartered vessels) are estimated at around 130,000 tonnes, from which 90% is exported. Europe (cephalopods; demersal fish; crustaceans), Africa (small pelagic fish) and Japan (cephalopods) are the main markets for the Mauritanian processing industry. Export of frozen products is the monopoly of SMCP, a private company controlled by the Ministry of Fisheries. Fresh fish exports are not controlled by this monopoly and are historically undertaken by private sector operators. However since the second semester of 2008, the Government has imposed a prohibition on exports of fresh fish. Catches by the foreign fleet operating in the EEZ are not landed in Mauritania (vessel facilities are generally unsuitable), but are transported directly by the vessel to the home port, landed in canary Islands or the products are transshipped in Nouadhibou.

The main port, Nouadhibou, accommodates the industrial fleet and most of the artisanal fleet. Most of the cold storage facilities and processing plants are also located here. Nouakchott has no fishing port, and here, as elsewhere, the artisanal fleet lands on the beach. Nouakchott is the main centre for chilled fish with the local processing industry gathering fresh fish by pick-up from here and all along the coast between Cape Timiris and the Southern border with Senegal.

The domestic processing sector suffers from a lack of supplies of raw material, and cannot operate efficiently throughout the year. The domestic processing industry does not produce high value-added products, but mainly operates cold storage for frozen-at-sea products from the industrial freezing fleet. Fresh fish processors sort and clean products before freezing by plate freezer. Before the export ban, chilled fish was exported in whole-gutted form, and less frequently in portion or fillet form.

5.8.2 Fisheries management and controls

The Ministry of Fisheries is responsible for the management and control of the fishing activities that fall under the Mauritanian sovereignty (national vessels, foreign vessels licensed to fish in

the EEZ and national processing industry). The legal framework for fisheries is contained in the Fisheries Act 2000, which was updated in 2007. As far as fleet monitoring is concerned, the legal framework includes provision for granting licences to both national fleet (including artisanal fleet) and foreign vessels, VMS monitoring of all licensed fleet, logbook submission for the industrial fleet, prohibition of transhipment at sea, and a requirement for observers on board industrial vessels. The legal requirements therefore define a relatively comprehensive and modern system of fisheries management and controls.

National and foreign licensed fishing vessels calling or transhipping at Nouadhibou port or in Nouadhibou Bay are required to notify the Authorities 72 hours prior to entrance. Port entry or transhipment by fishing vessels which are not licenced by the Mauritanian administration is forbidden. Therefore no foreign vessels coming from non-Mauritanian fishing grounds can be allowed to call or tranship at Nouadhibou.

The national fleet register is not well managed and the physical follow up of registration is not properly done. Industrial vessels characteristics are recorded on the register without any measurements by the administration. The artisanal fleet is not incorporated into the national fishing vessel register and there is no list of vessels and their owners. The licence scheme for the artisanal fleet as required by the Fisheries Act is not implemented.

Landings, transhipment and exports from industrial fleet are monitored and recorded by the Fisheries Inspection Dept and Customs Dept. Artisanal landings are not monitored due to the number of vessels, the lack of register and the numerous uncontrolled landing sites along the coast. When they were permitted, the exports of fresh fish from this segment were neither checked nor monitored by the Customs Dept.

5.8.3 Export controls for fishery products

Certification of origin

The conditions governing external trade between Mauritania and the EC are those approved under the EBA/LDC regime. So far, the rules of origin applying are those detailed under the Cotonou+ regulation. Certificates of origin are sold by the Chamber of Commerce to the operator and validated by the Customs Dept. There are no specific procedures for validating the Certificate of Origin. There are no formal procedures in place for checking the conformity of the declarations of origin. Exporters merely have to supply a Bill of Lading and a pro forma invoice to obtain the certificate in all cases. There are clear indications that, in the past, false certificates of origin were validated by the Customs.

Sanitary certification

The competent authority for sanitary controls is the Office National d'Inspection Sanitaire des Produits de la Pêche et de l'Aquaculture (ONISPA). This was created in 2007 as an autonomous body, following the 2006 FVO inspection mission, which found numerous severe deficiencies in the sanitary control system. ONISPA falls under the responsibility of the Ministry of Fisheries. The Mauritanian regulatory framework has also been revised since the FVO mission, and with some notable exceptions (such as traceability, see below) is now considered to be equivalent with the Community legislation. Nevertheless, implementation capacity is still very weak. In August 2008, ONISPA had certified for export to EC some 98 freezer vessels and 46 processing plants. However sanitary conditions are not fully compliant, HACCP plans are not satisfactory and ONISPA is still developing the internal procedures for inspection and control. In particular the artisanal fleet and coastal landing sites are not subject to any inspection and control by ONISPA inspectors. In the past, false certificates have been detected on entry to the EC, suggesting that checks at the point of export are subject to fraudulent or corrupt influence. There is a strong suspicion that some approved establishments are allowing others to export under their approval number, a situation exacerbated by the lack of effective systems of traceability.

RFMOs catch certification

Mauritania is not contracting party of any RFMO, except the International Whaling Commission. Despite the activities of the Mauritanian fishery sector in relation to tuna and other large pelagic fish (with tuna purse seiners, longliners and pole and line vessels operating in its EEZ, albeit not landing in Mauritania), the country has not become a contracting party to ICCAT.

CITES certification

Mauritania is a signatory of the CITES Convention. The overall Management Authority for CITES certification is the "Ministry for Environment. Mauritania exports very few CITES protected species, based on export statistics of CITES.

5.8.4 Status of Traceability systems

There is no requirement for traceability of fishery products expressed within the national legislation, and this requirement is therefore not applied by the Mauritanian processing sector. ONISPA is well aware of this deficiency in the legal framework, and in the sector. Improving the controls on traceability of fishery products is one of the areas addressed by an action plan for institutional strengthening of the ONISPA and supported by the PRCC project[56].

Products from industrial freezing vessels (cartons of frozen products) should be able to be traced relatively easily. However establishing traceability systems for products from the artisanal sector will be a more difficult challenge. Here raw material is collected from many smaller vessels landing at different locations along the coast. In addition, there is a common practice of transshipment of catch at sea to freezer vessels, as a means of saving fuel otherwise spent on trips to the port, and this is likely to considerable complicate the identification of the originating vessel.

5.8.5 Type and volume of certification required for implementation of the Regulation

The type and volume of catch certification anticipated in Mauritania is shown in the box below.

Activity 1: Validation of catch certificates from Mauritanian vessels landing in Mauritania and in other countries.

This is likely to be the principal activity undertaken, requiring validation of catch certification from the national fleet of some 252 industrial and coastal fishing vessels, producing some 25,000 tonnes of cephalopods and 18,000 tonnes demersal fish. In addition, there are significant numbers of small scale fishing vessels which supply cephalopods and demersal fish for fresh and frozen exports to the EC, which will also be subject to the certification requirements. Whilst not all of the small scale fleet of 3,600 vessels are linked to the EC market, the numbers involved could be significant.

Activity 2: Provision of statements in relation to import and re-export of processed fishery products (indirect importation to the EC)

There are no recorded formal imports of fishery products into Mauritania. However the some of the mandatory landings made by the small scale Senegalese vessels operating under the Mauritania-Senegal Agreement could in theory enter the EC supply chain, although there is no evidence of this at present.

In addition up to 136 EC vessels have been operating regularly in the Mauritanian EEZ. Some of these tranship product in Mauritania for the EC market. The Government of Mauritania may therefore receive requests from the flag states for data for validation of catch certification. This will require transmission of information from the port state control activities (supervision of transhipment). There is no data on the number of transhipments events which could be subject

[56] PRCC: Programme de renforcement des capacités commerciales du secteur de la pêche mauritanien

to this requirement but the number of requests is not expected to amount to a significant amount.

5.8.6 Technical and administrative capacity for catch certification

With regard to **Activity 1**, Mauritania is not expected to face major difficulties in validating the catch certificates relating to landings of the national industrial fleet since for this segment there is already in place a logbook system and monitoring of landings by the Fisheries Inspection Dept. Control is further facilitated by the single point of control for this segment at Nouadhibou port. The fleet registration system for the artisanal fleet, and the widely dispersed landings with no supervision means that implementation of the catch certification in respect of small scale vessels is likely to be only achieved after a suitable system of landing controls is introduced. This is within the requirements of the current legislation, but is not yet implemented.

With regard to **Activity 2**, no activity is anticipated in relation to Article 14 and Annex 4 statements in respect of indirect exports. If some products caught by Senegalese vessels were to be exported to the EC via Mauritanian processors, these statements would be required. However, at present this does not occur; most of the products are small pelagic fish marketed locally and regionally.

In general, the Mauritanian authorities have in place a basic capacity for implementation of the requirement for catch certification in relation to industrial vessels (both Mauritanian vessels, as well as foreign flagged operators, including EC vessels, who tranship their catch in the territorial waters). However, due to a current lack of traceability, the capacity of the Mauritanian competent authorities to bring a strong evidential rigor to the catch certification system is presently limited and will need to be addressed.

Furthermore the low technical and administrative capacity for fisheries monitoring and control of the small scale fleet means that Mauritania is likely to experience some considerable difficulties extending implementation of the system beyond the core of national flagged industrial vessels landing in Nouadhibou. Official traceability checks required for catch certification

The lack of traceability into the processing plants and lack of structured record keeping by the national administration are limiting factors in this activity. For example, due to grading requirements for cephalopods, one container may be loaded with catches from up to 20 or 25 different vessels and/or pirogues. Processors cannot say from which vessel each carton was landed. Therefore in both industrial and artisanal segments the weak or non-existent systems of traceability further undermine short term compliance with the Regulation 1005/2008. However, in relation to the industrial sector, this could be addressed relatively easily and measures to this are being promoted by ONISPA.

5.8.7 Needs assessment

The progressively upward revision of the catch estimates, from the small scale fishery suggest that this sector could be of importance in supplying raw material for international trade. In this respect, the complete lack of any form of monitoring and control over landings from this segment mitigates against the implementation of an effective catch certification system in compliance with Regulation 1005/2008. Improvements in control of the sector are required, primarily to ensure compliance with sanitary conditions (for example to limit landings to those locations with suitable facilities and inspection by the Competent Authority). Implementation of these measures will facilitate the application of the catch certification system to this sector.

The large number of beach landing points, and the lack of facilities at those sites, suggest that bringing a regulatory control to this sector should be one of the strategic priorities of the Ministry of Fisheries. Compared to this, the needs in relation to meeting the requirements for catch certification from the industrial sector are much more limited and can be easily addressed. The main requirement will be to establish systems of traceability to ensure that catch certificates presented at the time of export do in fact correspond with the physical products being consigned.

In general the lack of any central fisheries database and formally defined information system within the Ministry of Fisheries also undermines the implementation of the catch certification requirements. There is a need to address this requirement, with the design of the information system taking into account the requirement for the catch certification, as well other certification and fisheries management requirements (for example sanitary and origin controls).

Lack of effective controls over integrity of certification is also matter of concern, given the historical evidence of falsification of sanitary and origin certification. This raises the need for caution with regard to the design of the catch certification procedures, to ensure a high degree of system integrity. There will be a need to consider the implementation of specific anti-fraud measures to counter this threat.

5.8.8 Expected impacts of catch certification on illegal fishing

Some Mauritanian vessels fishing outside the EEZ are likely to operate without effective controls. Whilst there is no data regarding the external activities of these vessels there is a suspicion that some may undertake some IUU fishing activities. Some of the specific, and omnipresent risks identified (see Annex 12) include use of prohibited fishing gears (grids, monofilaments etc), non-observance of zone limits (industrial fishing in zones reserved for artisanal fishing), non-observance of the terms of the licence (such as fishing of certain reserved species by industrial vessels e.g. courbine), unauthorised transhipment, and illegal fishing for green lobster in Moroccan waters. In the short term, the lack of rigour in the control of the national fishing vessel register, and the lack of inspections at sea will make it difficult to identify and isolate these cases and address the non-compliance though refusal to validate certificates. However, in the longer term, catch certification is expected to be able to address these IUU activities and reduce their frequency and dimensions. The potential for stronger impacts of the regulation can be considered, though improved traceability conditions, cross checks between different agencies (MPMEM, DSPCM, Customs and ONISPA) and development of a comprehensive fisheries information database systems.

Mauritania appears to have effectively stopped any illegal foreign industrial fishing without authorization in its waters, thanks to the maritime patrols deployed in recent years by the DSPCM. According to the information collected during the mission, the last detected “pirate” fishing inside the ZEE Mauritanian was in 2001. However with regard to artisanal fishing, there exists an unauthorized fishing by unlicensed small scale Senegalese vessels, operating outside the terms of the Mauritania-Senegal Fisheries Agreement. Whilst fishing by small scale vessels (both national and Senegalese) remain essentially unregulated, the catch certification system cannot be an effective tool against this kind of IUU activities, and the impacts of the regulation in this sector will only be demonstrable in the longer term.

5.9 Summary of main findings in case study countries

A summary of the main findings in the case study countries is provided in Table 9 which describes the main features of the fishery sector, its fleet activities and export profile, as well as existing control capacities for implementation of fisheries controls.

Table 9: Summary of key features which determine catch and export certification activities

Feature	Namibia	Indonesia	Thailand	Morocco	Ecuador	Senegal	Mauritius	Mauritania
Exports to EC in 2007 (EUR million)	232	204	605	741	559	236	144	62
Export dependency on EU (by value)	65% mainly hake, whitefish	15% mainly shrimp, cephalopod, canned tuna. NB significant reduction since EC safeguard measures implemented in 2006	30% mainly canned tuna (10%) and farmed shrimp (10%), balance cephalopods and fish.	52%	48% mainly tuna cans and loins and farmed shrimp	75%	69% mainly canned tuna	43% frozen demersal and cephalopods
No. EC approved export establishments (marine capture fish only)	26	129	289	361 (plus 32 cold stores)	61	67	12	46
No. EC approved freezer/factory vessels	61	7	0	388	11	84	2	98
No. of industrial vessels potentially supplying EC	228	c.5000 vessels >30GT under central government management	14,520 registered vessels >10GT	1816 coastal vessels 449 high seas vessels	583	126	35	252
No. of small scale vessels potentially supplying EC	None	220,000 under control of provincial governments	c.51,000 vessels	14,225 vessels	205 surface long line supplying mahi mahi and swordfish	14,000	1570 dermersal line and pelagic long line vessels	3600
Exports to EC derived from small scale fisheries	None	Anecdotal evidence of wide range of marine fish, crustacea and cephalopod species	Anecdotal evidence of marine fish, cephalopods	Anecdotal evidence; all species	Long line fishing for mahi mahi and swordfish	Significant, estimated at 32,000 tonnes/year, including fresh fish	Limited quantities only so far	Anecdotal evidence of marine fish, cephalopods

Feature of export supply chain	Direct landings to processing	Large numbers of intermediate traders collect for export packers	Large numbers of intermediate traders collect for export processors	Direct supply from fishers to export processors (via dedicated agents)	Direct supply from fishers to export processors (via dedicated agents)	Direct supply from 8 approved landing sites	Tuna for canning via landings in Seychelles direct or via reefers. Balance landed locally.	Direct frozen at sea, plus fresh fish frozen on shore. Little value added.
Exports to EC derived from imported raw material	10% of exports of hake from imports; some shrimp/other species	Tuna for canning (not significant)	90% of raw material for canned tuna sector and 70% of marine fish exported to EC comes from imports from 42 countries.	Yes, c10% of exports derived from imports from EU (shrimps, pelagics) and other third countries	About 40% of tuna raw material for canning from landings by foreign vessels	3-5%, mainly tunas	Tuna for canning from EC & Seychelles vessels landing in Seychelles.	Negligible
No. of foreign flagged vessels landing for exports to EC	Up to 70 vessels, operate under charter (demersal trawl, small pelagic, pole and line)	None	None (all foreign landings transhipped for Asian markets)	12 Russian vessels (small pelagics) c. 100 EC vessels operating under FPA	40 purse seiners and 4 longliners operate under joint ventures	9 EC pole and line 3 regional flagged vessels	Potentially up to 100 foreign licenced vessels.	Up to 136 EC vessels operating in EEZ, some transhipping to EC market
Fishing activity in other EEZs or high seas	ICCAT	IOTC, SW Pacific	IOTC, plus operations in EEZs of Cambodia, Vietnam, Myanmar Malaysia, Timor-Leste, Indonesia Bangladesh, India, Somalia, Iran Oman, Yemen (some re-flagged)	ICCAT Some activities in EEZ of neighbouring countries	IATTC and East Pacific SW Pacific (Kiribati) No significant activity in other EEZs	ICCAT IOTC EEZ of W.African countries (IUU?)	IOTC for longliners	ICCAT
Functional MCS systems in place	Well developed MCS function. Includes full VMS, observers and landing declarations. Weak import controls	Partial MCS system covering c.5000 vessel >30GT under central Government jurisdiction. Landing declarations, limited; very limited observers or VMS coverage. Very weak controls on smaller vessels <30GT	Partial MCS system covering landing declarations and monitoring at sea; focused on control on technical measures	Good coverage of some catch activities (logbooks, catch declarations for octopus, tuna). VMS law in place not implemented.	Log book and landing declaration system in place VMS under implementation Large observer programme in place for tuna	No effective log book or landing controls. Some air surveillance. No observers, VMS in process of impementation	Well developed MCS function. Includes full VMS, observers and landing declarations. Good import tracking and controls.	Landing control system for industrial vessels in place

		(provincial government)						
Functional traceability in place to vessel level	No legal requirement. Limited traceability, especially hake sector (imports)	Legal requirement, but not implemented. Good traceability in tuna long line/canning sectors. Otherwise very limited.	No legal requirement for marine capture fisheries. Good traceability to vessel level in canned tuna sector and other sectors. Otherwise limited by fragmented supply chain. Formal access agreements with Myanmar and Indonesia	Good traceability from first sale to export. Low traceability from vessel catches to first sale	Controls on imported raw material improved since 2007 SANCO mission. Good traceability in tuna sector and farmed shrimp. Good conditions for implementation in other sectors.	In place for industrial vessels. Some improvements, but still weak for small scale fisheries	Legal requirement in place. Good traceability to vessel level in tuna and other export sectors.	Traceability weak for industrial; non existent for small scale fisheries
Extra territorial landings by distant water vessels	None; all landings in country.	Some tunas from longliners in IOTC landed in Sri Lanka/Thailand for EC market. Other products landed in country.	Significant extra-territorial landings/ transhipment in fishing zones.	Some landings in Senegal	No extra territorial landings or transhipment of any significance	Small scale vessels may tranship illegally in waters of other third countries	Some limited landings in EC eg. La Reunion	None/limited
Illegal fishing risks	Some vessels fish illegally in other EEZs Supplies of imported illegally caught fish as raw material for processing and re-export	Illegal fishing in EEZ by vessels from neighbouring countries (Vietnam, Thailand, Cambodia) exploit limited MCS capacity Undeclared landings from domestic fleet. Smaller longliners may operate illegally and land in the IOTC region	Some illegal fishing (Myanmar) limited to border regions. Undeclared landings from domestic fleet. High potential for supplies of imported illegally caught fish as raw material for processing and re-export	Low risks due to effective MCS capacity Undeclared landings from domestic fleet.	Some limited illegal fishing by neighbouring countries Undeclared landings from domestic fleet. Unauthorised tuna fishing in WCPFC Region (under Kiribati licence) High potential for supplies of imported illegally caught fish as raw material for processing and re-export	High risk of mis-declaration of catches from domestic industrial vessels High risks of illegal fishing from small scale vessels operating in EEZ of neighbouring countries.	Very limited non-compliances in surface long line segment. Some limited illegal fishing in EEZ. Significant reduction in illegal transhipment of toothfish since introduction of CCAMLR certification. Overall low IUU risk.	Medium risk of non-compliance with national conservation rules due to weak enforcement infrastructure Some possibility of unrecorded ttarnshipments.

Table 10: Summary of third country implementation activities required for Regulation 1005/2008

Implementation Activities	**Namibia**	**Indonesia**	**Thailand**	**Morocco**	**Ecuador**	**Senegal**	**Mauritius**	**Mauritania**
Activity 1: Validation of catch certificates in relation to own vessels landing in the third country	✓	✓	✓	✓	✓	✓	✓	✓
Activity 1: Validation of catch certificates in relation to own vessels landing in other third countries	Not required	✓	✓	✓	Not required	Not required	Not required	Not required
Activity 2: Validation of Article 14 and Annex 4 processing statements in relation to indirect exports	✓	Not required	✓	✓	✓	✓	✓	Not required

6 THIRD COUNTRY ARRANGEMENTS FOR CATCH CERTIFICATION

This section describes the catch certification activities to be required in the case study countries, and identifies what will be required to undertake the activity. In each case, the capacity of the case study country to respond to the need is assessed, taking into account the important features of the fishery sector identified in each case.

6.1 Catch certification activities required in third countries

Table 10 on the previous page describes the main activities in relation to catch certification which will need to be implemented in response to Regulation 1005/2008, and outlines the needs of the third country.

The regulation gives rise to different pattern of certification and validation activities in each of the case study countries, showing that each third country's response will need to be tailored to the specific features of its fishery supply, processing and trade activities, and to its own specific legal requirements. All of the case study countries have in place some basic controls on fish landings and will need to implement systems for validation of catch certificates for catches landed by their own vessels in their own fishing ports (Activity 1).

Six countries have significant levels of indirect exports from processing (import of raw materials for export processing operations), and here, there will be a need to provide additional controls to ensure the linkages between catch certificates and the export consignment (Activity 2). Since these requirements are already explicit in relation to existing requirements for certification of origin and certification of sanitary conditions, the IUU catch certification does not require any additional measures to be implemented in these third countries. This feature does however give rise to opportunities for integration of systems to improve administrative efficiency and effectiveness.

Finally, significant numbers of vessels from three of the countries also operate and land elsewhere than the flag state. Normally their catch certificates could be validated by the flag state in the absence of any specific evidence of IUU activity (Activity 1). However, there may be demand for occasional implementation of port state controls in respect of these vessels. These are not mandated by the regulation, but they are foreseeable, for example if a third country has specific concerns regarding the activities of a specific vessel in its fleet. Port state controls are not expected to require any specific additional resources or systems.

Some of the other factors to be taken into account are considered in the remaining sections of this section of the report.

6.2 Potential for meeting requirements with existing control systems

A central requirement for the implementation of the IUU Regulation by a third country supplier of fishery products is the capacity to validate catch certificates by assessing compliance with national legislation and international obligations (for example linked to RFMO membership). In order to certify the legality of a catch in compliance with the regulation the competent authority will need to consider evidence concerning:

- whether fishing vessels have complied with access conditions;
- whether the landed catch (species and quantities) is as described on the certificate; this implies a system of landing controls (declarations and port inspections), with an associated information system
- whether the consignment being exported actually contains the same fishery products as described on the catch certificates which are attached to it; this implies a system of traceability is in place through the supply chain from the point of origin (fishing port or import), and that there is a procedure for assessing supply chain integrity

Traceability systems, and the special case of imported raw materials are considered separately below. Knowledge of fishing vessels' activities, and the port inspection systems, form part of the fisheries monitoring control and surveillance system.

The design and extent of implementation of the MCS systems in the case study countries varied considerably. Namibia, Mauritius and Ecuador have potential to achieve compliance in the short term. Namibia has almost full coverage of activities of all licensed vessels via VMS (albeit with some technical problems to be resolved). Landing control systems are defined in law, in place and fully functional and will be able to perform validation of catch certification without significant difficulties.

Mauritius has a comprehensive landing control system, with records held in a central database, VMS on all licenced vessels >20m and has a good system of import tracking. Mauritius is able to implement its fisheries legislation effectively, and thus well placed to ensure the issue of valid catch certificates for the small number of its own vessels which supply the EC market. Most of the exports are of canned tuna derived from raw material imported from just a few sources, principally the Seychelles. The limited range of distribution channels will facilitate compliance since there is little scope for circumvention by fraudulent operators. Traceability systems are in place and checked, and this country is not expected to face any difficulties in implementation of the Regulation.

Ecuador also has en effective landing control system, supported by a satellite VMS system, covering almost all of the planned vessels. Landing controls for the small scale fishery, are in the process of being revised, and when completed this should ensure sufficient data is obtained to validate certification. Ecuador will however need to invest in upgraded ICT technology to facilitate the storage and dissemination of data required for validation.

Both Thailand and Morocco have in place effective systems of port inspection and both plan to develop satellite VMS systems and to strengthen their existing landing controls. However in Thailand in particular, this process is hampered by an out of date fisheries law, which does not define adequate powers, and a delayed promulgation of its replacement. In Morocco, controls are particularly effective in some sectors (such as octopus) which provide a sound model for the controls to be applied in validation of the EC catch certificates. In both countries extending these inspections to those segments of smaller scale fisheries which supply the EC market will require additional resources to extend the time and location of the controls.

Indonesia in some respects is in a better position to meet the requirements of the Regulation in the short term, since landing control systems are in place, for vessels above 30GT and there is a functional VMS system in place, at least for part of its larger vessels. However, the value of this is limited by the limited scope (it is only required for vessels operating in the EEZ), and the partial implementation (at present only about half of the vessels under the jurisdiction of the central government are covered). The catch certification system will also eventually need to be extended to vessels below this size. Although the Regulation can allow several national validating authorities, ensuring a consistent basis for certifciation is likely to present a difficulty due to the exclusive jurisdiction of local government over vessels <30GT and the almost complete lack of implementation of existing controls in this sector (no vessel monitoring, no landing controls). It is not clear the extent to which such vessels contribute to EC trade, but there is clear evidence that there are significant quantities of fish involved. The issue of decentralised jurisdiction is considered in more detail below.

Senegal is likely to have some difficulties in implementing the catch certification system and may be regarded as typical of many less developed ACP countries, in that it has a very weak institutional basis for fisheries controls. It lacks an adequate legal powers to fully implement national legislation, suffers from a dysfunctional organisation structure with poorly defined functions and communications, and is chronically underinvested. It is difficult to see how Senegal can fully meet the requirements of Regulation 1005/2008 without significant long term support.

Mauritania has developed and applied a system of landing controls applied to industrial vessels, which will provide the foundation for validation of catch certification in relation to landings from Mauritanian flagged vessels, and for port state controls for foreign flagged vessels which tranship in Mauritanian ports. However, this is not implemented with respect to all landing events and vessels. With improvements in this respect, and to the system of traceability, data management and integrity of the certification systems, Mauritania should be able to meet most of the requirements of Regulation 1005/2008 in respect of industrial vessels. However, for exports to the Community derived from small scale fisheries, Mauritania does not have at

present any suitable systems of vessel registration or licensing in place, and will only be able to meet the requirements of the regulation after taking the necessary steps to implement a basic control framework.

6.3 Potential for linkages with existing controls for international trade

6.3.1 Certification of origin

All countries studied had in place systems for certification of origin, for the purposes of securing tariff preferences when fishery products are consigned to destination markets which offer preferential access. Morocco, Senegal and Namibia are the only countries which are signatories of the International Convention on the simplification and harmonization of Customs Procedures (Kyoto Convention) as amended, which entered into force on 3 February 2006. However none have ratified Annex K in relation to rules of origin. It is therefore not surprising that a wide range of approaches was evident in the countries studied.

The issue of GSP1 certificates of origin was initiated by application of the exporter. In the most part preferential CoOs were issued either under Ministries of Finance or Trade, in some cases with implementation by customs authorities. In all cases, only documentary checks are made at the time of issue, to verify the consistency of the information presented in the application. Additional checks are made on enterprises when a clarification regarding a CoO is requested by the competent authority in the export country. In the most part, these checks comprise requests to the exporter to supply the additional information to support the origin claims. Except in Thailand there was very little evidence of any routine approach to audit of authorised export enterprises and sometimes this was not directed at claims other than preferential origin. Checks were only made where either a) import duty rebates or credits are made on products which are re-exported or b) product is re-exported with a preferential origin claim, to gain improved terms of access in the export market. Of the countries studied only Mauritius had a defined system of checks on product which was exported as national origin (with or without preferential certificate of origin), to assure that this did not contain any non-authorised sources of supply. The case studies showed that the CoO system does have potential to generate data which is of use to the certification for the purposes of IUU certification by a third country and that there is a significant potential to coordinate the approach with the catch certification. However, only one of the third countries (Mauritius) had developed the administrative capacity to undertake this type of compliance checking.

6.3.2 Sanitary certification

All of the case study countries are listed in Decision 2006/766/EC of 6 November 2006 “as regards the list of third countries and territories from which imports of fishery products in any form for human consumption are permitted” (as amended) and are thus able to supply fishery products to the EC. All have therefore implemented the requirements (validated by DG SANCO audit) under Regulation 853/2004[57], principally a system for official control of fishery products, approval of export establishments and freezer/factory vessels, and certification of export consignments. Certification indicates that the origin of the fishery products consigned is an approved establishment or vessel which meets sanitary requirements.

To be equivalent with the EC regulation, there should be a requirement for traceability as part of the approval conditions. As noted below, these conditions are not always met in full. However, in principle, providing that traceability systems are in place, in all of the study countries the list of approved vessels and establishments (and compliant landing sites which meet the sanitary conditions) provides a strong framework for the implementation of the catch certification system. This is because the sanitary controls should, in theory, limit the potential sources of entry into the supply chain, and this provide a focus for the catch certification systems. In terms of national

[57] REGULATION (EC)No 853/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 laying down specific hygiene rules for food of animal origin

fleets therefore, the certification activities can, and should be focused on a) approved freezer and factory vessels b) fishing vessels landing at sites subject to sanitary controls (i.e. with appropriate conditions and opportunity for inspection of vessels) and c) exports from approved establishments. The situation becomes more complex when supplies for export are imported (derived from vessels flagged by another state or directly imported). However, the principles remain; the sources of supply are still required to be compliant i.e. flag state on the list of approved countries and the vessel listed (if a freezer or factory vessel). However, in practice the mission has found that these controls over imports are generally weak.

Furthermore, for less developed countries, implementation of EC compliant sanitary controls in small scale fisheries is a general problem. National competent authorities struggle to apply sanitary controls at points in the supply chain prior to the export processor, and especially in the case of the small scale sector. This is recognised in the design of the EDF project "Strengthening fishery product health conditions in ACP countries" which has specific modules targeted at this segment. In addition, sanitary controls over imported fishery products in several third countries have been shown to be deficient. Where small scale fisheries and/or imports form strategically important supplies for the export of fishery products, it appears that third countries still need to significantly improve compliance with EC sanitary controls.

Therefore, for a third country, improving the future controls over sources of supply (particularly small scale fisheries and imports) to ensure that only authorised products enter the EC supply chain, will be coherent with both sanitary and IUU certification measures. It will also be coherent with a more rigorous approach to certification of origin (for example in line with adoption of Annex K of the Kyoto Convention).

6.3.3 Regional fisheries management certification activities

With the exception of Mauritania, all of the countries are members of one or more Regional Fisheries Management Organisations, and are bound to implement one or more documentation systems in relation to trade in fishery products covered by the RFMO. The Regulation 1005/2008 provides for the recognition of RFMO schemes in place for the certification of fishery products, where the scheme is substantially equivalent. The schemes were reviewed by the consultants; very few certificates are issued by any of the countries in relation to EC trade. The tuna schemes do not apply to cannery supply, nor to yellowfin tunas, being the most common products traded with the EC. Namibia is no longer a transit point for toothfish and transhipments of this species in Mauritius have declined significantly (both probably because of the introduction of the CCAMLR control system). IOTC and ICCAT schemes are mainly for statistical purposes and except for bluefin tuna, do not attest to the legality of the catch. Most importantly, RFMO species coverage is highly focused and covers only an insignificant proportion of trade between the case study countries and the EC, the most important element being swordfish exports from Morocco and yellowfin tunas from Mauritius (the schemes do not apply to cannery supply). Existing RFMO schemes therefore appear to offer only limited opportunities for being recognised as meeting the requirements of Regulation 1005/2008. However, compliance with the IUU catch certification schemes will contribute to strengthening the experience of the nominated competent authorities in respect to validation of skipper's declarations.

6.4 Import controls

Ecuador, Thailand, Mauritius and Namibia are all dependent to an extent on imported raw materials from other third countries. All of the countries have in place systems of sanitary controls which are substantially compliant with the EC hygiene conditions. However Namibia has not implemented controls over these imported inputs and still needs to fulfil these requirements. Thailand is heavily and strategically dependent on fish imports, and in fact functions very much as a processing and marketing platform for other countries' fishing fleets. Official import controls, although in place from the point of view of sanitary and preferential rules of origin, are not effectively coordinated, and it is likely that the IUU fish is laundered via Thai intermediaries. In all of these countries, there is an ongoing need to invest in a much more aggressive and coordinated approach to ensure the identity and integrity of imported fishery products, and that where they are to be re-exported to the EC that they comply with the various sanitary and rules of origin conditions. Verifiable systems of supply chain integrity will therefore

need to be established and monitored by the Competent Authorities in these countries. However, these needs cannot be considered as an impact of the IUU regulation since they are already required by the existing sanitary and preferential trade measures. Mauritius is the only country which has a sound official control already established over the origins of imported fishery products. This is assisted by the limited supply chain for the main products concerned (frozen tunas for canning, imported via Seychelles) and by the high level of internal raceability (to vessel) level established by the canneries.

Requirements imposed by DG SANCO on Ecuador have resulted in a tightening of controls over imported sources (limiting raw materials for products consigned to the EC market to those countries which have met sanitary conditions). Although a similar issue exists in the Thai industry, DG SANCO has not made similar requirements. However, in both Thailand and Ecuador, the "dolphin friendly measures" in the tuna sector (and in particular the voluntary certification under the Earth Island Institute, which is properly audited) have had a major impact in the development of vessel level traceability systems. Both of these industries should therefore not have difficulty in meeting the technical requirements of the Regulation. However there are industry concerns that the certification will now also involve additional costs and time due to validation by the flag states of supplying vessels (which are not involved in the current process).

6.5 Catch certification from small scale fisheries

Another major difference between the countries is the extent to which products from small scale fisheries should be certified. Small scale fisheries are typically characterised by

- Geographically widely dispersed production in remote locations
- Large numbers of producers each producing relatively small quantities
- Operating informally, frequently without vessels, or with very small unlicensed craft

However, collectively they can produce significant volumes of raw material.

Namibia has no small scale vessels and just two fish landing ports. This greatly simplifies the administrative requirements for catch certification. On the other hand, Indonesia and Thailand have very significant numbers of small scale fishers, landing in many different locations. In Mauritania and Senegal, groups of small scale fishers are dependent for their livelihoods on trade with the EC. In Thailand, the consultant's estimates suggest that if the 14,500 vessels which are formally registered with the Marine Department were to supply the EC market this would involve an estimated 500,000 catch certificates annually. Due to lack of data, in most countries the mission was not able to determine the precise extent to which small scale fisheries supply fishery products for export to the EC. Nevertheless it is clear that in some cases supplies are derived from small scale fisheries and they will have to meet the catch certification requirements.

The role of small scale fishers in supplying international trade gives rise to two potential difficulties in relation to the catch certification system. The first is in relation to the volume of certification and validation activity should the Regulation be applied *in senso stricto* to these fisheries. The second is that intermediate traders have evolved to deal with the distribution logistics created by this feature of the sector, again present in large numbers. These perform the functions of:

- Buying from producers, and physically distributing product in a single location together in quantities large enough to supply export processing
- Grading raw material and making up consignments for supply to export processors to meet export orders (in terms of species, quantities, size grades and qualities)

In a given export supply chain, these functions may be performed by a single or sometimes two intermediate traders. The implementation of the catch certification system could therefore present considerable challenges, amongst which are:

- Large numbers of landings events
- Poor literacy of fishers
- Weak implementation of fisheries surveillance and controls at level of the fishery
- Lack of traceability in the supply chain to link export consignment to fisher through intermediate traders

- Large numbers of certificates to be included in a single consignment

With regard to the last point, an example is provided in the case of the Thailand surimi sector. The sector uses low value demersal fish (lizard fish, threadfin bream, sweetlips) from the small scale sector. Even if the landed quantity of fish from a single vessel was 500kg, then a single export consignment of surimi (20 tonne container) would need to list at least 66 catch certificates (taking into account yield factors). With exports of some 1800 tonnes/year, this implies about 6,300 catch certificates. A similar ratio applied to cephalopods, where small scale fisheries also feature prominently in the catching, would suggest some 300,000 catch certificates to track.

Insofar as can be established export supplies from small scale fisheries are often derived from distinct fleet segments and limited to certain species. Export supply chains from small scale fisheries should therefore be relatively easy to identify and characterise. In many less developed country cases (including some of the countries visited in this study) there has been a need to rationalise these supply chains to ensure adequate sanitary controls (for example by limiting landings to specific sites where there are appropriate facilities in place). Ecuador is one such country which has recently taken this step. As a result, in those situations where it is required, the introduction of catch certification to this sector is not expected to impose major difficulties, providing that adequate measures are in place to concentrate landings (for example sanitary control measures applied to production and landing conditions). However, given the potentially larger numbers of vessels involved in some countries and the geographic spread of landings (as outlined in the example above), special short term conditions may need to be created to deal with this feature of the fishery sector. This can be achieved through the administrative cooperation foreseen under Art. 20 of Regulation 1005/2008.

6.6 Traceability in the supply chain

As noted above, the presentation of a validated catch certificates with a consignment of processed fishery products entering international trade, implies a verifiable connection between the consignment and the landing event described in the certificate. This in turn implies traceability through the supply chain, and a capacity on the part of the competent authority to check on the supply chain integrity (i.e. affirmation that non-authorised supplies of product have not been allowed to enter the consignment).

Traceability is not a strict legal requirement in all of the case study countries. For example legislation in Mauritius, Thailand and Namibia is not equivalent with the EC in this respect. The Food and Veterinary office of DG SANCO, in recent inspection missions to the case study countries has commented on the non-compliant status of traceability conditions in these countries.

Traceability systems implemented in the fishery sectors of the case study countries were extremely variable, both within and between countries. In trade with the EC, it is often a condition of the buyer's specification that a system of traceability system is in place. This is to ensure that the importer can meet the legal obligations for traceability placed on food business operators by Article 18 of Regulation 178/2002.

In some cases the requirement for traceability is included in a certification scheme, adherence to which is demanded by the EC buyer. Where third country enterprises have implemented such voluntary certification schemes, these were found to provide ideal conditions for implementation of the IUU Regulation. Several schemes were identified: the Marine Stewardship Council sustainability certification for fish stocks, and the Earth Island Institute for dolphin friendly certification. Both schemes come with "chain of custody" certification requirements and both schemes have third party validation and certification (unlike the RFMO schemes), thus guaranteeing their integrity. In addition, standard food safety certification schemes (such as British Retail Consortium, ISO 22000) all require traceability and are subject to third party certification, thus guaranteeing their integrity. As a result tuna canning sectors in Ecuador and Thailand, and to an extent, Indonesia, have developed extremely sound systems of traceability, largely in response to the voluntary "dolphin friendly" certification measure demanded by US importers. Where there was supplier audit and certification by EC importers of their third country suppliers, again traceability conditions were good (for example in the Indonesian fresh tuna trade, or Thai surimi processing). Therefore products of fisheries with such certification can be

considered as providing the conditions for catch certification, including compliance with extant regulations (or high standards) and guaranteed supply chain integrity.

However, an important omission was identified in these third party certification schemes, which limits their direct usefulness in relation to the IUU catch certification. This is in relation to the validation of the certificates by a competent authority of the flag state. Third party certification schemes in general have no links with official controls of the competent authority, relying instead on independent third party certifiers. Therefore although useful in promoting and demonstrating traceability conditions, such schemes provide only part of the requirements for implementation of the EC catch certification scheme.

In other segments, traceability conditions were generally found to be relatively poor. The hake sector in Namibia does not implement such systems. There are a large number of supply vessels (plus imports) and a wide range of finished products, whilst on the other hand the supply chain is relatively short, and there is a high degree of concentration of ownership, and vertical and multinational integration within the sector. Implementation of traceability systems is therefore highly feasible. It is significantly less so in relation to exports which rely substantially on products from small scale fisheries, such as in Indonesia and Thailand, particularly marine fish and cephalopods, and this is an issue which is likely to cause considerable difficulty in implementation of the Regulation 1005/2008 in these countries.

7 IMPLICATIONS OF FINDINGS FOR THIRD COUNTRIES

7.1 Main potential difficulties to be overcome

This section considers what less developed countries will need to do to achieve full implementation of the catch certification system in Regulation 1005/2008, and concludes with a brief assessment of their capacity to undertake these steps, identifying where there may be serious difficulties in responding to the regulation.

7.1.1 Revision of legal framework

In all of the case study countries the regulation will require a revision of existing or development of new legislation. At the very least, regulations will be required to introduce the catch certification system, which defines the requirement, the procedures, the institutional responsibilities and the penalties for non-compliance. This might take sometime, depending on the level of the text to be revised, as revision of regulations has to follow the national procedures. In Thailand and Senegal, for example, the basic legal text is clearly outdated. Their revision will take several months if not years. At the other end of the spectrum, Mauritius will only need to make regulatory provision for catch certification as a condition of EC export (and associated training of inspectors); the rest of the requirements being in place already.

All countries apart from Senegal have a requirement for log books and landing declarations to be submitted from licensed vessels. However, these requirements are not applied to all vessels (for example in the case of Thailand, where only fishing gears are licensed, or for smaller vessels of the coastal fleets in Indonesia and Morocco). Furthermore, in some countries the MCS systems are not sufficient in scope or extent to ensure full implementation and enforcement of national legislation. Requirements for the submission of log books and landing declarations will therefore need to be reviewed in such the countries, to ensure that the requirements apply to the target fleet segments required to submit catch certificates for validation.

A traceability requirement is a condition of the equivalence of the sanitary controls, and is also implied in the application of rules of origin. If for any reason, effective traceability has not been implemented for these reasons, it will need to be addressed, although this cannot be considered as a *prima facie* impact of the IUU regulation. In the case study countries, a legal traceability requirement was only formally present in Morocco (octopus), Mauritius, Indonesia and Ecuador. The other countries have not mandated traceability in their laws and can this be regarded as not

being “at least equivalent” with EC sanitary requirements. The EC approach places the responsibility on the fishery business operator for one up-one down traceability, but an alternative more prescriptive approach may be considered in some sectors, as introduced for the octopus trade in Morocco, or as applied to farmed shrimp and bivalve molluscs in Thailand.

7.1.2 Strengthening of fisheries and fish trade monitoring control and surveillance

Many less developed third countries have implemented the substantial elements of a modern fisheries control system. In the case study countries, Namibia and Ecuador are good examples. However, all countries will need to increase the capacity for the system to meet the demand for additional checks and inspections required by the catch certification. This will most likely require the recruitment and training of additional inspection capacity. All inspectors (including existing ones) will need to be trained in the implementation of the new scheme. In addition, in some countries, such as Mauritania and Senegal, the extension of fisheries control systems to small scale fisheries will be required before the catch certification requirements can be fulfilled in respect of this fleer segment.

This will need to focus on areas which are universally weak at the moment (such as validation of catch data submitted, import controls, and forensic cross checking of inputs and outputs to assess integrity of the supply chain). In particular the case studies have shown that most countries will need to develop and strengthen import controls and traceability to allow origins to be verified. This is a requirement for sanitary certification as well as certification of origin, and there are considerable benefits to be gained through a collaborative approach (between the competent authorities for fisheries, sanitary and export controls, where they do not overlap). In some countries where import control is of strategic importance such as Thailand or Namibia, this could even justify the establishment of a joint inspection body to undertake the validation of identity and origin claims and support the import controls on behalf of the different functions. The fisheries hub concept, implemented by Mauritius, in which all of the relevant authorities are co-located, provides a good model for this kind of inter-ministerial approach.

7.1.3 Private sector developments

As well as development of the Competent Authority functions required to support certification, there will be a requirement for a parallel response from the fishery sector. In the processing and distribution sector, the implementation of traceability systems may require the recruitment of additional industry staff, along with training and supply of electronic data systems. These requirements will apply to all products other than canned tuna, since this sector has already substantially implemented vessel level traceability systems. In other sectors, although some operators have already complied with the requirement (as a result of customer demands) most will need to invest in upgraded control systems. Whilst these systems may be required for effective implementation, they cannot be considered to generate implementation costs in relation to the IUU regulation, since enterprises should already have established such systems in fulfilment of the sanitary conditions for trade with the EC.

7.2 Summary of requirements

Table 11 summarises the main administrative and technical requirements for catch certification in third countries.

Table 11: Summary of third country administrative and technical requirements for implementation of Regulation 1005/2008

Legal framework	Namibia	Indonesia	Thailand	Morocco	Ecuador	Senegal	Mauritius	Mauritania
Revision of vessel registration/licensing laws	✓	✓	✓	Not required	Not required	✓	Not required	✓
Drafting on regulations for catch certification	✓	✓	✓	✓	✓	✓	✓	✓
Fisheries MCS System								
Recruitment of additional inspectors	✓	✓	✓	✓	✓	✓	Not required	✓
Training in catch certification	✓	✓	✓	✓	✓	✓	✓	✓
Introduction/extension of landing declarations and database	Already in place	✓	✓	Already in place	✓	Non existent	Not required	✓
Strengthened monitoring system for imported fishery products	✓	Not required	✓	✓	Already in place	Non existent	Not required	Not required

7.3 Barriers to effective implementation

A comparison of the main requirements for implementation in Table 11 above, with the findings regarding the capacities of the case study countries set out in Section 6, provides an indication of where some of the main a barriers to implementation might fall in less developed countries. Discussions were held with the third countries visited in the study, and all expressed concern regarding these barriers, and the limited time scale available for them to be overcome.

Amongst the case study countries, Ecuador, Morocco, Mauritius and Namibia therefore have no major barriers to implementation. Namibia's fishery sector has weak traceability conditions, but as indicated, the sector conditions are such that their introduction is feasible. However, some third countries may not be so well placed and the study has identified four potentially serious barriers to implementation which may be presented in less developed third countries.

Table 12: Main requirements for implementation

Country	Main barriers to implementation
Namibia	None
Indonesia	Local government jurisdiction over vessels <30GT
Thailand	High dependency and lack of controls on imported raw material Technical and financial limitations to the extension of landing controls
Morocco	Volume of certification and traceability of exports from small scale fisheries
Ecuador	None
Senegal	Registration of artisanal fishing fleet involved in export chain Volume of certification and traceability of exports from small scale fisheries Submission of logbooks by industrial vessels Data validation procedures
Mauritius	None
Mauritania	Registration of artisanal fishing fleet involved in export chain Lack of capacity for landing controls for small scale fisheries

7.3.1 Weak Fisheries MCS systems

Regulation 1005/2008 does not require an MCS system to be in place, but where such a system is in place it will clearly support the validation of catch certificates. However the study has identified that some of the case study countries in particular, and less developed third countries in general, could experience technical and administrative difficulties in the validation of catch certificates. These difficulties could arise in countries which have passed laws (for example requiring registration of fishing vessels, fishing licences and landing declarations) which are not fully implemented in respect of all vessels. This gap, between legal requirements and their practical implementation, will need to be closed if the validation of the catch certificates is to be based on evidence (that is confirming that the national laws have been adhered to in respect of the catch being certified). In such third countries, investment in MCS capacity building is likely to be required to address this issue.

7.3.2 Exports from small scale fisheries

Another potential barrier to implementation by less developed third countries may be the extent to which small scale fisheries supply exports. Whilst there are products identified from small scale fisheries which enter trade with the EC from third countries, the study has not been able to quantify them. However in some countries such as Mauritania, Senegal and Morocco anecdotal evidence suggests that they may be relatively important. Where specific trade in products from small scale fisheries can be identified, it may in some cases be necessary to make special arrangements which take into account the features of the distribution system (frequently characterised by large numbers landing in remote locations and supplying export processors via intermediate traders). The IUU Regulation allows the adoption of detailed technical rules to address such special cases to facilitate the implementation of the Regulation.[58]

7.3.3 Decentralised fisheries jurisdictions

Furthermore in some countries (such as Indonesia) where fisheries jurisdiction is divided between central and local government, ensuring an adequate and standardised implementation of the catch certification system across different local government bodies, with poorly developed fisheries controls appears, at least in the countries studied, to be barrier which is insurmountable even in the medium term. In the longer term, the solution is likely to involve modifying fisheries the powers and responsibilities of central and local governments. However, it should be noted that implementation of the IUU Regulation may be carried out by the nomination of more than one competent authorities, each covering different regions of a third country.

7.3.4 Complexity of import monitoring

In countries with high import dependency, the development of inter-ministerial control systems to assure origins could provide difficulties in terms of the complexity of the systems to be developed, and the lack of capacity to identify fraudulent claims regarding origins.

7.4 Validity of classification of third countries trading with the EC

7.4.1 Validity of proposed classification

As described in section 3.1, a previous study presented an identification of different groups of countries, on the basis of several criteria considered relevant to the implementation of the catch certification system under Regulation 1005/2008.

It is evident that some countries may fall simultaneously within different categories of implementation risk as a result of having a widely diversified fishery sector. One example is Thailand, in which we can foresee difficulties in certification related to the imported source of raw materials (Group 2), catches from the EEZ and adjacent high seas (Group 3), and catches from high seas and other EEZs landed in other countries (Groups 5. 6 and 7). Thus the application of single classification as determinant of all of the implementation needs of the country may not provide the most valid approach.

[58] During the closing stages of the project, the consultants were informed that the Commission has identified the potential difficulties of small scale fisheries and has therefore incorporated provisions on small scale fishing in the implementing rules. In these provisions, the certification requirement would fall on the exporter, who would have to complete the catch certificate and provide a list of corresponding vessels upon request. Fishermen of small vessels would therefore not be directly concerned with the certification requirement. These provisions were not taken into account in this report.

Furthermore whilst the classification was useful for identifying the different types of activity which might be required to achieve certification, based on fleet landing and trade patterns (for example using the paradigm in Figure 1), this classification does not address implementation capacity of the third country concerned. As the case studies have shown, this is variable, with some countries able to implement the system easily and quickly (Mauritius, Ecuador and Namibia) and others expected to have some difficulties (e.g. Senegal, Mauritania) mostly in relation to their development status. LDCs with weak governance appear to be where satisfactory implementation of the certification measure will be the most difficult, and such LDCs are also those countries where risks of IUU fishing are thought to be the most significant.

For these reasons the classification proposed in the previous study does not provide a usable tool to guide the delivery of support measures. A more appropriate measure will be the capacity of the third country to exert fisheries governance, and in this respect other indicators may provide more useful. In particular, the two factors identified which need to be taken into account in determining the extent and nature of assistance required are:

Capacity of fisheries MCS system; the study has shown that the MCS capacity varies considerably between different less developed countries. Some countries have a well developed framework for fisheries MCS, within which the new catch certification measure can be easily integrated. Here the needs will be for information, short term advice and training on administrative requirements. At the other end of the scale are countries which have no effective MCS capacity at present. Implementation support will first need to address this lack of capacity, before the catch certification system can be implemented effectively (for example in developing effective landing control systems).

Degree of decentralisation in fisheries administration; a second factor identified by the study and salient to the needs of less developed countries is the extent to which fisheries controls are decentralised. Countries with substantially decentralised fisheries management will have much greater need for support since the implementation will also have to address the complexity generated by issues of governance, coordination and finance, in the context of the relationship between central and local government.

7.4.2 Proposed future approach to assessing needs of third countries

For some of the most important trading partners (in terms of volume or trade and export dependency of the third country on the EC market), the classification will need to be supplemented on an *ad hoc* basis, to take account of additional implementation factors identified in this report (e.g. .dependence on small fisheries, use of imported raw materials etc). This approach will lead to a more accurate identification of support measures to be implemented, since specific needs will be assessed on a case by case basis.

8 COST - BENEFIT ANALYSIS

8.1 Methodology for cost benefit analysis

8.1.1 General approach

The approach adopted to the analysis of costs an benefits compares the economic impacts of international trade on fishery products for a third country under three scenarios.

The first scenario is the "*pre-regulation*" scenario, in which the country sustains ongoing costs due to IUU fishing, but does not sustain any costs associated with the implementation of a catch certification system.

The second scenario is a "*compliance with regulation*" scenario which considers an effectively implemented regulation which results in a reduced level of IUU fishing (variable according to findings regarding IUU status), with a commensurate impact on exports, and sustains recurrent costs associated with the operation of catch certification system.

The third scenario is a "*non-compliance with regulation*" scenario in which the third country is assumed not to comply with the regulation and loses access to the EC market for that part of the exports to which the regulation applies (marine capture fishery products).

The consultants have applied a non-discounted cost-benefit model, as described in Annex E of the Manual for Financial and Economic Analysis of Development Projects, "Methods and instruments for project cycle management", European Commission, 1997. For simplicity this approach does not take into account the timing of costs and benefits, but considers the direct impacts over a single year of operations under each scenario.

Implementation costs of catch certification can be considered as one-off capital investment costs, and recurrent costs sustained to operate the system. Benefits are considered to be due to the reduction in IUU fishing which the regulation will bring about, thus providing additional supplies to a third country, which would otherwise be lost. Using assumed current levels of IUU fishing the approach calculates the impact on IUU catches, and assumes that a proportionate increase in trade with the EC. The model therefore estimates the incremental value added as a result of the regulation.

Thus the costs and benefits of each scenario are calculated on an incremental basis for the two "with regulation" scenarios, and used to compute cost advantage (cost/tonne of illegally caught fish eliminated from EC exports) and the cost effectiveness (ratio of benefits to costs).

8.1.2 Treatment of investment costs

It is apparent that the costs of implementation of the regulation will vary considerably between countries. One of the determinants is the nature of certification required to satisfy the requirements of the regulation, as indicated in Table 10.

However, another determinant of cost may be considered, which is the extent to which a functional landing control system (including provision of determining location and time of catch) is, or is not, already in place. In some countries, with a functioning MCS system, a solid legal basis for control, a well trained fisheries inspectorate, VMS onboard (such as Namibia, and Ecuador), the investment costs are minimal (perhaps less than EUR100,000 to cover catch certification regulation and training). In countries where existing legislation is not implemented or enforced, the investment costs could be higher and sustained by both state budget and private sector.

However it is important to note that economic costs of compliance with national legislation should not be attributed to the catch certification requirement set out in Regulation 1005/2008. This is because the primary rationale for the investment is provided by the national, rather than the EC requirements. The impact of Regulation 1005/2008 will be to ensure that the national requirements are in fact applied, whatever they may be. Furthermore there are other benefits to be derived from the operation of such a system, in terms of better catch data leading to improved scientific recommendations, and improved longer term sustainability of resources. For these reasons, the MCS investment costs are not considered as being a consequence of the IUU regulation and are considered as external to the catch certification cost benefit analysis. Similarly capital costs sustained by fishing vessels, and installation of traceability systems in processing and distribution (which in any case are not attributable to the regulation) are also considered to be external to the cost-benefit analysis.

8.1.3 Treatment of recurrent Costs

Recurrent costs are identified as costs to government (i.e. cost of the certification system) and costs to private operators (costs of responding to the regulation, for example record keeping and operating traceability systems in processing establishments). As note above, it is not reasonable to allocate the full cost of MCS operations to the IUU regulation, since countries which have already implemented effective and complete MCS functions (for example Ecuador and Namibia) would continue to incur the MCS cost even without the Regulation. Whilst some countries will be able to use existing data systems to provide the basis for catch certification, others may require to respond by allocating additional resources to certain elements of the control system, which will incur additional costs. Therefore a nominal recurring implementation

cost has been assumed for catch certification, which is 5% of the estimated MCS cost (which itself is estimated at 1.4% of value of exports). This figure is based on data quoted in "The Cost of Fisheries Management", by William E. Schrank et al[59], which assessed that during 1994 to 1997, fisheries management costs in Namibia averaged 4.8% of landed value, which corresponded to 1.4% of export value (average EUR9/tonne). Thus the assumption is that the recurrent cost of operating the catch certification system is assumed to be 0.0.07% of export value.

8.1.4 Assessment of extent and nature of IUU fishing

In a particular country the overall impact of the regulation will depend on the nature and extent of IUU fishing currently associated with the fisheries of that country As part of the case studies, the consultants undertook a review of IUU fishing in each of the third countries visited. This sought to identify the nature and extent of illegal fishing impacts on each of the countries. A detailed treatment is provided in Annex 12, and a brief summary is given in the following box.

Nature and extent of illegal fishing linked to EC markets in case study countries

Namibia is considered to suffer few losses as a result of illegal fishing. The main case in recent years concerns illegal discarding in the horse mackerel fishery, a product destined for regional trade only. There is a small theoretical risk of illegal fishing by SE Asian longliners, but no evidence of any losses. Two Namibian vessels have been operating illegally in the zones of other countries in recent years, with a possible linkage to the EC market. However, in relation to other exports this is not significant. Overall, losses from IUU fishing linked to EC market are considered to be low.

Indonesia suffers very significant losses due to illegal fishing in its waters by vessels from a number of SE Asian countries. There are hundreds of arrests each year, principally vessels from Vietnam, Thailand, Philippine and China. The MMAF estimates that illegal, unreported and unregulated fishing in Indonesian waters result in annual losses of US$2-3 billion, based on an assumed loss of catches of up to 25% of current levels at an ex-vessel price of USD2/kg. A significant loss of revenue can therefore be considered in relation to the EC market. There is also illegal fishing by Indonesian vessels in the waters of neighbouring countries, and in the Indian Ocean, where long line vessels not registered by IOTC have been identified, with exports linked to the EC market. Therefore Indonesia is considered to present a high risk of incurring loses due to illegal fishing.

Thailand does not suffer significantly from illegal fishing by foreign vessels in its EEZ. Direct losses due to illegal fishing are therefore considered to be zero. Some Thai owned fishing vessels operate legally in the zones of neighbouring countries (e.g. Indonesia) and its distant water fleet operates in the fisheries zones of some countries with relatively weak controls, with a medium risk of illegal activities (such as non- or under-declaration of catches). In addition, Thailand because of its wide range of imported products, from many different sources, combined with weak and uncoordinated controls over sources, is likely to be at high risk of importing and re-exporting illegally caught fishery products from other third countries. Thailand presents a high risk of IUU products exported to the EC market.

Morocco has experienced a moderate level of illegal fishing linked to its own vessels, with 201 infractions in 2004, all by national vessels and most of which can be linked to exports to the EC market. In addition, Moroccan vessels may fish in the EEZ of other W.African countries, but the legal basis for this is not clear. No infractions are reported due to foreign vessels, and Morocco is not considered to have any significant direct losses as a result of illegal fishing. However, the octopus experience shows that there might be some significant catches of high-value species that go under-reported, suggesting that Morocco is at a medium risk of being involved in international trade in products of IUU fishing.

[59] "The Cost of Fisheries Management", by William E. Schrank, Ragnar Arnason, Rögnvaldur Hannesson, Published by Ashgate Publishing, Ltd., 2003, ISBN 0754618552, 9780754618553

Some Ecuadorean vessels have been implicated in fishing in the W.Pacific region without being under the control of WCPFC. However the numbers are very low, suggesting a low level of IUU activity and associated benefits by Ecuadorean vessels. A low, and insignificant level of illegal activity by foreign vessels is reported, and Ecuador is therefore considered to present a low risk of trade in IUU fishery products.

In Senegal, while domestic fisheries seem to be moderately exposed to IUU fishing, the weak MCS framework over the activities of the national fleet in the EEZ under jurisdictions of neighbouring States is potentially contributing to the very high rates of IUU fishing estimated in EEZ of countries like Guinea, Sierra Leone, Liberia or Guinea Bissau. Although not confirmed by official sources, 40% of landings by the Senegal artisanal fleet would reportedly originate from other EEZ. The access is not regulated for most of the artisanal vessels involved and Senegal is therefore considered to present a high risk of incurring losses due to IUU fishing.

In Mauritania there are a number of IUU risks identified including use of prohibited fishing gears, non-observance of zone limits and licence terms, unauthorised transhipment, and illegal fishing waters of neighbouring countries. Whilst landing and transhipment controls are in place, capacity for cross checks, traceability and a record of fraudulent certification indicate that there is a clear and present risk of IUU associated with this fishery. However, it is also clear that thanks to the maritime patrols deployed in recent years by the DSPCM no “pirate” fishing has been detected since 2001. Mauritania is therefore considered to present a medium risk of IUU products entering the EC market.

It assumed that all of the IUU fishing identified represents a loss to the third country concerned since, by definition, its products do not make a sustainable contribution to the formal economy. Although data on IUU fishing is, by its nature, not readily available, discussions with stakeholders in each country provided estimates of the level of IUU fishing. Where no specific assessment has been available, based on the data in the box above, illegal fishing risks are classified as nil, low (average 2% of trade lost due to illegal fishing), medium (5% of trade lost) and high (10% of trade lost).

The approach adopted by the consultants also assumes that these estimated IUU percentages are applicable to the export sector, and pro rata to trade with the EC (i.e. the percentage of exports lost due to IUU fishing is the same as the percentage of total catches lost). These factors are used by the model to quantify the economic costs of IUU fishing in the different scenarios, and are shown in Table 13.

Table 13: Estimated impacts of IUU fishing on supplies to EC market from case study countries

	Namibia	Indonesia	Thailand	Morocco	Ecuador	Senegal	Mauritania
% of EC exports lost due to IUU fishing	2%	10%	10%	5%	2%	10%	5%

The other factor which will determine the impact of the regulation on IUU fishing on a third country is the extent to which it provides an effective tool for limiting trade in IUU fishery products. The “compliance with regulation scenario” should not assume that all IUU fishing is eliminated by the measures. Instead, the model assumes an effectiveness less than 100%. In the examples below, this is assumed to be 60% (i.e. 60% of exports from illegal fishing are eliminated). This is slightly less than the outcome of the introduction of the “octopus system” in Morocco, in which the gap between landings and exports was reduced from 100% to about 10% of exports by the introduction of the system, which corresponds to an 80% reduction in IUU catches (see section 5.4.3). However, this percentage could be varied depending on factors such as extent of corruption in the third country (for example by applying the factors expressed in Table 16).

8.1.5 Calculation of incremental benefits of the regulation

The benefits of compliance with the regulation are calculated on an incremental basis compared to the pre-regulation situation. In the "compliance with regulation" scenario these benefits are based on the change in volume and value of exports anticipated when illegal fishing is reduced. In the "non-compliance with regulation" scenario, it is assumed that trade in marine capture fishery products with the EC will not be able to take place (although trade in aquaculture species will continue). There will therefore be a loss of value added as sales are directed to other less profitable markets. The approach takes into account both of the impacts described in the previous section, and the possibility of only partial effectiveness.

The following hypothetical example explains the approach to the calculation of trade flows under each scenario.

Let pre-regulation exports to the EC (in tonnes) be 10,000 tonnes, 5,000 tonnes of which are from marine capture fisheries and 5,000 tonnes from aquaculture

Let effectiveness of regulation be 60%

Let pre-regulation IUU losses (as a % of EC exports) be 20%

The calculation of the exports under the different Scenarios is shown the Table 14 below.

Table 14: Calculation methods for level of EC exports in with regulation scenario

	Scenario 1 **Pre-regulation**	**Scenario 2** **Compliance with regulation**	**Scenario 3** **Non-compliance with regulation**
1. Exports to EC	*10,000*	*11,200* *(10,000 +(60%*2000))*	*5,000*
2. Estimate of lost exports to EC due to IUU catches/landings	*2,000*	*800* *(100-60)% * 2,000*	*2,000*

There was insufficient time and resources available to prepare detailed estimates of value added in the export distribution chain in the case study countries. Therefore value added is a calculated at an assumed level of 40% of the FOB export price. This proportion is based on the findings of a study for the anchovy catching and processing sector in Morocco[60]. In practice, a more representative figure could be obtained by a study of prices and margins in export distribution. The method could also be refined by separating VA in fishing, from VA in processing, to account for the differential benefits in processing of IUU fish caught by vessels from foreign flag states. The benefit is the incremental change in added value, calculated by applying the known average export price and value added content to the change in volume of exports.

It should be recognised that this methodology does not account for the indirect and longer term benefits of the regulation. These will include better reporting of fish catches, leading to better scientific recommendations, reduced fishing pressure on stocks and more effective fisheries management, better status of stocks, and increased yields for legal fishers. Within the frame of

[60] Eyjólfur Gudmundsson "Revenue distribution through the seafood value chain" in Report of The Expert Consultation On International Fish Trade, Rio de Janeiro, Brazil, 3-5 December 2003, FAO Fisheries Report No. 744 FIIU/R744 (En), Rome, 2004.

this study, these longer term benefits cannot be measured in monetary terms, but they should be considered as some of the primary economic benefits of the regulation.

8.2 Results of cost-benefit analysis in case study countries

The results of the cost benefit analysis for the countries studied are shown in Table 15. Additional data regarding the assumptions and the intermediate steps in the calculations is shown in the tables in Annex 13. The results shows that third countries which are able to fully comply with the regulation will be likely to make a net gain in value added, due to the increase in sustainable trade with the European Community as a result of legalisation of some catches which were previously considered to be lost to IUU fishing.

Assuming that all of the eight countries studied are able to comply with the Regulation (**Scenario 2**), this would be likely to eliminate illegal catches in relation to the trade with the EC corresponding to about 27,000 tonnes of fish/year. This represents a net gain of about 3.2% in volume of trade in lawfully caught fishery products between the EC and these countries, valued at EUR84.9 million. The total costs of compliance of the regulation are estimated at EUR5.9 million, and the value added gained on the additional exports obtained will be EUR33.2 million. Overall, the cost benefit ratio is estimated at 5.6; that is for every EUR1 of costs incurred in implementing the catch certification measure, an increase in value added exports of EUR5.6 may be obtained. The cost advantage is estimated at EUR218/tonne, representing the average cost of elimination of one tonne of IUU fish. The implication is that the average additional cost of implementation will be EUR7/tonne of existing imports (from all sources) or EUR8/tonne on marine products. Assuming that compliance costs sustained by a third country's Competent Authority will be passed to industry, and then to the customer, the additional costs could represent an overall 0.26% increase in the average price of marine fishery products exported to the EC.

The potential future impact of successful implementation of the Regulation varies considerably between the third countries studied. In particular, the regulation will deliver additional benefits to those countries which have high dependence on fish trade with the EC, whilst also experiencing high levels of IUU fishing. An example is Senegal, where the cost benefit ratio in Scenario 2 is 26. Morocco will also stand to make disproportionate gains (with a CB ratio of 10.6) as a result of its high dependence on the EC market. In general, countries which presently lose a significant income due to illegal fishing will stand to gain the most. However, it should be noted that in Indonesia, with one of the highest risks of IUU fishing, the positive impact of the regulation is reduced because of the more limited dependence on the EC market in this country. The impacts are only felt insofar as current catches are linked to the EC market. In countries which have relatively low IUU risks, and have already managed to reduce IUU fishing (such as Ecuador) the impacts are not so strongly positive.

As well as the direct short term benefits estimated by the model, Scenario 2 is also likely to generate long term economic benefits through improvements in the status of stocks concerned due to the reduction of illegal fishing. Additionally, since the certification scheme is likely to curb under-reporting, some of these countries which apply export levies (eg. Morocco) are likely to recuperate additional tax incomes as a result of the measure.

On the other hand, non-compliance resulting in loss of access to the EC market for marine capture fishery products (**Scenario 3**) would have significantly negative impacts compared to the pre-regulation situation. Overall, there would be a loss of EC trade by the eight third countries studied, from 846,352 tonnes/year to 98,229 tonnes/year (trade in aquaculture products would be unaffected). Of course this trade would not be lost entirely; product would be redirected to other markets. However these would not be so profitable and the loss in value added is estimated to be of the order of EUR228.9 million/year. This represents a 2.7% fall in the value of exports from the eight countries, or a 6.7% loss of value added. Clearly this would have a significant negative impact on incomes and employment. In fact the impacts of non-compliance could be more severe than indicated, since this model does not take into account any impact on prices of the additional supplies to non-EC markets, which would be likely to occur should this project need to find alternative markets.

The impact of Scenario 3 does however vary considerably from country to country. Thus for countries with relatively low levels of dependency on the EC market, such as Indonesia, there is a only modest impact of non-compliance (0.6% fall in export revenues, 1.6% loss in value added). Similarly, where a country has a high proportion of aquaculture products in its trade with the EC (such as Thailand) the impact of Scenario 3 is also limited (fall in export revenues of 1.3% and in value added of 3.3%). On the other hand, sectors with a high dependence on EC market, and with a majority of products from capture fisheries are much more exposed to the impacts of non-compliance. Non-compliance by Namibia, Senegal and Mauritius, which are in such a position would result in a critical loss of exports of up to 8 or 9% and the loss of almost a fifth of the value added. It is estimated that Mauritania would lose about a tenth of its value added as a result of non-compliance. For these countries, meeting the requirements of Regulation 1005/2008 can be regarded as a high strategic imperative.

Table 15: Annual costs and benefits to third countries of implementation of catch certification system

	Namibia	Indonesia	Thailand	Morocco	Ecuador	Senegal	Mauritius
SCENARIO 1 Pre-regulation							
Exports to EC (tonnes)	84.097	51.159	238.267	182.990	173.367	44.332	51.079
Value of EC exports (EUR)	222.767.691	203.627.040	605.470.000	741.475.000	558.743.000	178.001.680	143.485.000
VA on exports to the EC	89.107.076	81.450.816	242.188.000	296.590.000	223.497.200	71.200.672	57.394.000
VA on all fish exports (EUR)	100.665.088	604.317.292	1.592.668.000	480.000.000	424.913.600	94.400.000	67.200.000
% of exports lost to IUU	2,0%	10,0%	10,0%	5,0%	2,0%	10,0%	2,0%
EC exports lost due to IUU fishing	1.682	3.172	22.243	9.150	2.208	4.433	1.022
Cost of MCS	3.523.278	21.151.105	55.743.380	16.800.000	14.871.976	3.304.000	2.352.000
SCENARIO 2 Compliance with Regulation							
Exports to EC (tonnes)	85.106	53.062	251.613	188.480	174.692	46.992	51.692
Value of EC exports (EUR)	225.440.903	211.202.544	639.383.200	763.719.250	563.013.267	188.681.781	145.206.820
VA on exports to the EC	90.176.361	84.481.018	255.753.280	305.487.700	225.205.307	75.472.712	58.082.728
VA on all fish exports (EUR)	101.734.373	607.347.494	1.606.233.280	488.897.700	426.621.707	98.672.040	67.888.728
Change in exports to EC cf. Scenario 1	1.009	1.903	13.346	5.490	1.325	2.660	613
Change in VA of exports cf. Scenario 1	1.069.285	3.030.202	13.565.280	8.897.700	1.708.107	4.272.040	688.728
% of exports lost to IUU	0,8%	4,0%	4,0%	2,0%	0,8%	4,0%	0,8%
Cost of MCS (inc.certification @ 5%)	3.699.442	22.208.660	58.530.549	17.640.000	15.615.575	3.469.200	2.469.600
SCENARIO 3: Non-Compliance with Regulation							
Exports to EC (tonnes)	-	19.438	15.839	-	62.952	-	-
Value of EC exports (EUR)	-	106.934.445	74.270.000	-	246.155.000	-	-
VA on exports to the EC (aquaculture products)	-	42.773.778	29.708.000	-	98.462.000	-	-
VA on all fish exports (EUR)	78.388.319	594.648.033	1.539.548.000	405.852.500	393.654.800	76.599.832	52.851.500
Change in VA of exports cf. Scenario 1	***- 22.276.769***	***- 9.669.260***	***- 53.120.000***	***- 74.147.500***	***- 31.258.800***	***- 17.800.168***	***- 14.348.500***
% of exports lost to IUU	2,0%	10,0%	10,0%	5,0%	2,0%	10,0%	2,0%
EC exports lost due to IUU fishing (tonnes)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cost of MCS	3.523.278	21.151.105	55.743.380	16.800.000	14.871.976	3.304.000	2.352.000
SUMMARY							
Scenario 1: Pre-regulation							
Net Costs	-	-	-	-	-	-	-
Net Benefits	-	-	-	-	-	-	-
Scenario 2: Compliance with Regulation							
Additional Costs (Certification @ 10% MCS)	176.164	1.057.555	2.787.169	840.000	743.599	165.200	117.600
Additional Benefits (increase/decrease in VA)	1.069.285	3.030.202	13.565.280	8.897.700	1.708.107	4.272.040	688.728
Net additional benefit	893.121	1.972.646	10.778.111	8.057.700	964.508	4.106.840	571.128
Cost advantage (EUR/tonne of IUU eliminated)	175	556	209	153	561	62	192
Cost-benefit ratio	6,1	2,9	4,9	10,6	2,3	26	6
Scenario 3: Non-Compliance with Regulation							
Additional Costs	0	0	0	0	0	0	0
Additional Benefits (increase/decrease in VA)	***- 22.276.769***	***- 9.669.260***	***- 53.120.000***	***- 74.147.500***	***- 31.258.800***	***- 17.800.168***	***- 14.348.500***
Net additional benefit	***- 22.276.769***	***- 9.669.260***	***- 53.120.000***	***- 74.147.500***	***- 31.258.800***	***- 17.800.168***	***- 14.348.500***

Note: bold figures in italics are negative values

9 IMPACTS OF CATCH CERTIFICATION

9.1 Direct impacts of the regulation

9.1.1 Impact on EC fish supplies

The aim of the catch certification system and its application to third countries is to prevent the trade of illegally caught fishery products with the European Union. Therefore, the regulation will have less impact where the legal conditions for fishing are relatively relaxed, for example in SE Asia. Discussions with SEAFDEC[61] in Thailand suggest that most fishing in the SE Asian region is not regulated and/or not recorded, but only a relatively small proportion is illegal. Therefore the regulation will have most impact where illegal, rather than unregulated or unreported fishing is the source of exports to the EC.

The impact of the regulation on illegal fishing in a particular country will depend on the level of illegal fishing as well as the dimensions of trade, and its dependency on the EC market. In the eight case study countries (which include three of the top ten suppliers to the EC market), the consultants estimate that the overall impact of the regulation would be to reduce the losses due to illegal catches linked to the EC market from an estimated 45,000 tonnes/ year to about 18,000 tonnes/year, assuming a 60% effectiveness of the regulation. The balance of 27,000 tonnes of catches would be converted to lawful landings and would be available to trade with the EC. This represents an increase in about 3.2% of the trade with the EC from the countries studied. These countries themselves account for about 19% of the EC fish imports (846,000 tonnes, valued at EUR2.7 billion, out of annual imports of c.EUR14 billion in 2006).

9.1.2 Impact on exports by third countries

The case study countries represent some of the most important less developed country trading partners for the EC in the area of fishery products. The impacts of the regulation on a third country trading position with the EC will be a function of the dependency of the export sector on that market. The study shows that the degree of fish export dependency on the EC varies considerably, from 89% in the case of Namibia to 13% in the case of Indonesia. Namibia, Thailand and Ecuador have an export base where one product features strongly (white fish in the former case) and canned tuna in the case of Ecuador and Thailand[62]. In these countries there will be a strong imperative for implementation of the catch certification system. Indonesia, Thailand, Morocco and Senegal have a wide range of exported fishery products to the EC, which complicates implementation of the regulation, because of the range of sources which need to be addressed. In such countries, there may be a shift in the profile of products exported, as operators in some segments of the industry (for example trading in products from small scale fisheries) may find it easier to export to markets other than EC. This does not apply however to Morocco or Senegal which have few, if any, potential alternative markets.

9.1.3 Value added

It is unlikely that illegal fishing for exportable products will cease in the short term; rather exporters will seek alternative, albeit less profitable markets as the costs of compliance reduce profitability of the EC market. For example, in the case of Indonesia, its is interesting to note that the dependency on the EC market has fallen significantly in recent years, as many exporters have switched to other markets in response to safeguard measures imposed by DG SANCO. Although these have been relaxed somewhat in recent years, exporters have shown reluctance to re-enter the EC market. The case illustrates that exporters do have capacity to seek alternative markets, albeit at a lower profit margin, when the business conditions dictate.

[61] Southeast Asian Fisheries Development Centre

[62] In both latter cases most of the shrimp trade is from aquaculture sources, and falls outside the scope of the regulation (although some shrimp from capture fisheries will be included)

Therefore the short term impact on the third country is likely to be a redirection of trade away to other markets, with reduced value added reflected in lower incomes and profits for workers and enterprises in the third country. However, where dependency on this market is lower, the impact is reduced proportionally. In the longer term, the regulation is expected to bring benefits of increased value added, as greater proportions of the total exportable catch fall within regulatory control, with the associated increases in value added

9.1.4 Food supply

Compliance could result in increased supplies for domestic consumers, as illegally caught products cease to have access to the EC market. However, in the less developed markets there may be only limited demand for the higher value products typically consumed by the EC. As noted above, it is more likely that exports will be re-directed from the EC to other markets, there will be no impact on food supplies to the domestic market. The regulation is therefore not expected to have any impact on food supplies in less developed countries.

9.2 Risks

9.2.1 Exclusion of small scale fisheries

Given that there is technical challenge and cost of implementing catch certification and traceability systems in relation to products from small scale fisheries, there is a risk that this will not be achieved in some export segments in less developed countries where products from small scale fisheries contribute significantly to exports. An alternative approach to individual certification of each landing event from small scale fisheries is therefore indicated. There is a need for considering products from small scale fisheries to be a special case, and to account for this in the administrative collaboration between the parties. One solution may be to accept a reduced level of focus (for example in some areas certification of catches and validation of catch certificates from individual vessels may not be feasible, at least in the first instance). Suggestions for how this might be achieved are provided in Section 11 (recommendations).

9.2.2 Secondary market in catch certificates

There is a risk that in corrupt countries, a secondary market in catch certificates will develop in which exporters will pass off illegal supplies (in term of IUU or sanitary non-compliances) as lawfully landed. This is especially likely given that trade in IUU fishery products is in any case a fraudulent activity which involves changing the identity (in terms of origin) of the fishery products concerned.

Many less developed countries have significant problems with corruption. Perceived levels of corruption in the case study countries are shown in Table 16. Especially in the more corrupt countries, the implementation of the catch certification in such countries without such a fraud is highly unlikely. The likelihood of fraud is also higher in more corrupt countries in which catch certification may be decentralised (for example in Indonesia).

The existence of this risk suggests that the Competent Authorities will need to develop specific strategies to counter fraudulent use of catch certificates. Some suggestions regarding how this might be achieved are given in Section 11.

Table 16: Perceived corruption in case study countries

Country	Corruption perception index 2008 (max 10)	World rank (out of 180)
Mauritius	5.5	41
Namibia	4.5	61
Thailand	3.5	80
Morocco	3.5	80
Senegal	3.4	85
Mauritania	2.8	115
Indonesia	2.6	126
Ecuador	2.0	151

Source: Transparency International, Annual Corruption Perception Index, 2008
http://www.transparency.org/news_room/in_focus/2008/cpi2008/cpi_2008_table

10 CONCLUSIONS

10.1 Administrative requirements

To comply with regulation 1005/2008 arrangements for catch certification in third countries should comprise three main activities. Activity 1: Validation of catch certificates relating to catches undertaken by the third county vessels (landing both in the third country or in other countries) ("flag state controls") ; Activity 2: Provision of statements in relation to export and re-export of processed fishery products (indirect importation to the EC) (Article 14 and Annex 4 statements). Not all activities will be required in each country, the requirements are determined by the pattern of fleet activity, flag state and origin of imports which supply the EC marketing chain.

10.2 Technical requirements and barriers to implementation

All third countries will need to define a control system comprising a mix of these activities which meets their individual circumstances. They will need to prepare regulations to define the catch certification system, and allocate additional resources to the associated landing and documentary controls (the activities described above) for evidence- based validation. Factors which will determine the complexity of implementation are:

- state of development of fisheries MCS system
- traceability conditions in the distribution chain
- degree of international integration of the fishery sector (dependency on distant water fishing, on foreign vessels fishing in the EEZ and on imports)
- dependency on small scale fishing for EC supplies
- decentralisation of fisheries administration

These all provide potential barriers to implementation, considered below.

Only three of the eight case study countries had in place MCS systems for adequate fisheries control of industrial fleets. Where fisheries MCS systems are not strong enough to enforce control of the national legislation, the basis in evidence for validation of catch certification by the third country will be relatively weak. In these cases there will be a need to support the upgrading of the MCS function. This will require strengthening of legislation (for example implementing regulations) and human resources and sharing of information. In some countries this may involve additional costs and allocation of human resources (recruitment and training). However it is important to point out that this is not primarily attributable to the IUU Regulation, but is due to the weak current implementation of national requirements. As a result, the implementation of the Regulation may provide opportunity for significant investment in MCS capacity building in order to address the issue of IUU fishing.

Another important pre-condition is traceability. Few products are exported to the EC in unprocessed form ex-vessel; most exports from third countries are processed, which can involve a distribution chain and change of ownership. Keeping track of these transactions is an important pre-condition for catch certification system, to ensure that catch certificates submitted with an export consignment do in fact represent the fish which it contains. Traceability is required to meet EC sanitary conditions and therefore all countries trading with the Community should have such systems in place. The traceability requirement is also implied in the application of rules of origin and systems for certification of origin. Therefore, the implied requirement for traceability in the IUU regulation does not add any significant new measure. However, in general, and with the exception of the tuna canning industry, standards of traceability in the fishery sector of third countries can be relatively weak, and they are often not subject to adequate official checks and controls. There will be a general need to strengthen traceability requirements, and their enforcement, and this is coherent with the objectives of the catch certification system. This will benefit to enforcement of both sanitary and origin rules.

Whilst it is difficult to determine the extent to which small scale fisheries supply exports to the EC, in some countries (such as Senegal) there may be numerous small and unregistered vessels to be included in the scheme, often landing in numerous and remote locations. This gives rise to two difficulties. The first is in relation to the sheer volume of certification and validation activity should the Regulation be applied *in senso stricto* to these fisheries. The second is that intermediate traders have evolved to deal with the distribution logistics created by this feature of the sector, again present in large numbers, which substantially complicates traceability measures to establish the integrity of the supply chain. Although sanitary measures require landings to be limited to sites subject to official controls, this has not always been undertaken in less developed countries. Special conditions may therefore be needed in the short term to deal with implementation in this area. This can be addressed through the administrative cooperation or by dedicated implementation rules of Regulation 1005/2008 (as proposed by the Commission in the closing stages of the study).

Similarly, many countries also have significant levels of indirect exports from processing (import of raw materials for export processing operations), and here, there will be a need to provide additional controls and checks on origin and traceability to ensure the linkages between catch certificates and the export consignment, and to prevent “laundering” of IUU fishery products.

There is a risk that a third country has difficulty maintaining a certified supply channel for export to the EC if its supplying countries, are unable to comply with requirements for catch certification. Weaknesses in other third country’s capacity for effective controls may therefore undermine the supplies from third countries which are otherwise compliant, and their supply patterns may need to be modified.

Furthermore in some countries (such as Indonesia) where fisheries jurisdiction is divided between central and local government, ensuring an adequate and standardised implementation of the catch certification system across different local government bodies, with poorly developed fisheries controls appears, at least in the countries studied, to be barrier which is insurmountable even in the medium term. In the longer term, the solution is likely to involve modifying fisheries the powers and responsibilities of central and local governments.

10.3 Linkages with existing controls for international trade

All countries to which the regulation will apply will meet the EC sanitary conditions, thus limiting imports to products from supply chains with fishery business operators who are approved and meet sanitary conditions. Therefore, the EC supply chain to be subject to catch certification should be already defined by the sanitary requirements. In practice, as reports about the case study countries from the Food and Veterinary Office of DG SANCO show, conditions of traceability, and sanitary conditions at the level of fishery are not always under full control of the Competent Authority. Implementation of EC compliant sanitary controls in small scale fisheries in less developed countries is a general problem (for example recognised in the design of the EDF project "Strengthening fishery product health conditions in ACP countries"). National competent authorities struggle to apply sanitary controls at points in the supply chain prior to the export processor. This is also the case in relation to imported fishery products. DG SANCO has in the past noted the possibility of unauthorised supplies entering the supply chain, a risk present in at least three of the countries studied here.

All countries have in place systems for certification of origin, for the purposes of securing tariff preferences when fishery products are consigned to destination markets which offer preferential access. However, the systems used varied considerably. In the study none of the countries has implemented Annex K of the Kyoto Convention on International Convention on the Simplification and Harmonization of Customs Procedures. In the most part, preferential CoOs are issued either under Ministries of Finance or Trade, in some cases with implementation by customs authorities. In most countries studied checks were only made in relation to claims which had a fiscal impact, and there was little evidence of a routine approach to audit of authorised export enterprises or for forensic checking of origins of raw material (for example balancing imports and exports of products from specific origins). In some countries, which are active as suppliers of indirect exports to the EC (such as Ecuador, Namibia, Thailand and Morocco), there is a considerable potential for mis-declaration of origins (which in the case of fishery products must be "wholly originating"), and an associated risk of "laundering" of IUU products.

Therefore the operational aims of catch certification, certification of origin and the sanitary controls are fully coherent, and there is a good potential for linkage of the controls in these areas with attendant improvements in administrative effectiveness and efficiency. All require knowledge of origins and systems of traceability to be implemented, and all therefore provide the same regulatory incentive for improved control of the supply chain. These systems were poorly coordinated (if at all) in the third countries studied. Although there is no linkage between the systems, and linkages are not mandated by the Regulation 1005/2008, there is a strong case for third countries in using the same information regarding origins and distribution chain for sanitary, origin and catch certification controls.

Many countries are members of RFMOs and are bound to implement documentation systems in relation to trade in fishery products covered by the RFMO. Whilst the Regulation 1005/2008 provides for considering that the IUU catch certification requirement to have been met in respect of products which are already covered by an RFMO scheme (providing the scheme mandates conditions considered to be equivalent by the Commission), the potential impact of linking to these systems is limited by the limited scope of the RFMO certification (in terms of species, nature of fishery products, and attestation). Most importantly, their species coverage is highly focused and covers only an insignificant proportion of trade between the case study countries and the EC. Furthermore there is no external independent audit of these systems and attestations may not refer specifically to the legality of the catch. Existing RFMO schemes therefore appear to offer little opportunity at the present meeting the requirements of Regulation 1005/2008.

The study also showed that where a sector has substantially implemented a voluntary certification scheme of which traceability is a condition, these were found to provide ideal conditions for implementation of the IUU Regulation. Several schemes were identified including the Marine Stewardship Council sustainability certification for fish stocks, and the Earth Island Institute for dolphin friendly certification. Both schemes come with "chain of custody" certification requirements and both schemes have third party validation and certification (unlike the RFMO schemes), thus guaranteeing their integrity. In addition, standard food safety certification

schemes (such as British Retail Consortium, or ISO 22000) all require traceability and are subject to third party certification, thus guaranteeing their integrity. In particular tuna canning sectors in several countries have developed extremely sound systems of traceability, largely in response to the voluntary "dolphin friendly" certification measure demanded by US importers. Products of fisheries with such certification can be considered as providing the conditions for catch certification, including compliance with extant conservation regulations (or higher standards) and guaranteed supply chain integrity. However, an important omission in all of the schemes is in relation to the validation of the certificates by a competent authority of the flag state. Therefore whilst they may not provide a direct means of assessing compliance with the Regulation, where a sector is substantially compliant with one of these certifiable standards, the catch certification process by the third country will be significantly easier.

10.4 Impacts on trade in fishery products

The global impact (when extrapolated to other countries) will depend on the nature and extent of illegal fishing in these countries. A preliminary assessment of the value of imports from IUU fishing into the EC showed that it could represent 10% of the total value of imports. The average estimated for the case study countries was of a similar order (7.6%). The whole set of measures included in Reg. 1005/2008, including the catch certification scheme, is intended to reduce this level significantly.

In the eight case study countries the overall impact of the regulation would be to increase lawful trade with the EC market, by an estimated 27,000 tonnes/ year valued at EUR84.9 million. This represents an increase of about 3.2% in the trade with the EC. Based on extrapolation of these estimated impacts in the case study countries (which account for about one fifth of EC imports), the global benefits in terms of trade values could be as high as EUR425 million/year.

10.5 Impacts on value added in third countries

The short term impact of the re-direction of IUU catches to legal trade with the EC is there will an increase in value added earned by the third countries. In the eight case study countries this is estimated to be in the region of EUR34 million/year. Based on extrapolation, the global benefits in terms of value added to fishery sectors of third countries could be as high as EUR170 million/year. Impacts on incomes and profits will mostly fall where there is a combination of relatively high dependency on the EC market, and relatively high levels of IUU fishery products, for example in countries such as Senegal, Morocco and Thailand.

10.6 Impacts on illegal fishing

The impact on illegal fishing in a particular country will depend on the current extent of this activity, the balance of costs and benefits sustained and the dimensions of trade with the EC. The impacts of the regulation will therefore vary considerably between countries. Where a country's supply chain is not involved in IUU fishing (for example with a strong fisheries MCS in place), or where there are only weak links between marine capture fisheries and the EC market, the impacts of the regulation will be zero. Other countries may sustain high levels of IUU fishing associated with the EC market, and here the regulation will have greater impacts. In the short term uncertifiable IUU fishery products may be able to find alternative markets. The case studies in Asia and South America have demonstrated that exporters do have capacity to seek alternative markets, albeit at a lower profit margin, when the business conditions dictate. In the case of Southern and West African countries which are highly dependant on the EU market, the catch certification scheme will most probably be a major disincentive to illegal fishing.

In the case study countries, the regulation is estimated to reduce IUU fishing by about 27,000 tonnes/year. This represents an assumed 60% of the IUU fishing associated with trade with the EC. Based on extrapolation, the global impact could therefore be a reduction in illegal catches in the region of 135,000 tonnes/year.

Longer term impacts of the regulation will include improved sustainability of resources, better reporting of fish catches, better scientific recommendations, more effective fisheries management, better status of stocks, and increased yields for legal fishers. In the case study

countries, the main factors which determine the direct impacts on supplies of fishery products are the extent of dependency of the EC market and the nature and extent of IUU fishing.

10.7 Impacts on food supply

Compliance could result in increased supplies for domestic consumers in third countries, as illegally caught products cease to have access to the EC market. However, in the less developed markets there may be only limited demand for the higher value products typically consumed by the EC. As noted above, it is more likely that exports will be re-directed from the EC to other markets, there will be no net impact on food supplies to the domestic market. The regulation is therefore not expected to have any impact on food supplies in less developed countries.

10.8 Risks

Given that there is a technical challenge and cost of implementing catch certification and traceability systems in relation to products from small scale fisheries, there is a risk that this will not be achieved in less developed countries. Where products from small scale fisheries contribute significantly to export supply chain (for example as in the case study countries of Senegal), there is therefore a risk is that this sector is further restricted from access to the EC market.

An alternative approach to individual certification of each landing event from small scale fisheries is therefore indicated. There is a need for considering products from small scale fisheries to be a special case, and to account for this in the systems developed by the third country for certification. One solution may be to accept a reduced level of focus (for example in some areas vessel level certification may not be feasible, at least in the first instance).

There is also a risk that in corrupt countries, a secondary market in fraudulent catch certificates will develop in which exporters will pass off illegal supplies (in term of IUU or sanitary non-compliances) as lawfully landed. This is especially likely given that trade in IUU fishery products is in any case a fraudulent activity which involves changing the identity (in terms of origin) of the fishery products concerned. Many less developed countries have significant problems with corruption and the implementation of the catch certification in such countries without such a fraud is highly unlikely. The likelihood of fraud is also higher in more corrupt countries in which catch certification may be decentralised (for example in Indonesia). The existence of this risk suggests that the Competent Authorities will need to develop specific strategies to counter fraudulent use of catch certificates.

10.9 Proposed approach to assessing needs of third countries

A previous study presented an identification of different groups of countries, on the basis of several criteria considered relevant to the implementation of the catch certification system under Regulation 1005/2008. The assessment of needs for catch certification in the case study countries has shown a need to reconsider this classification. For a classification to be of use in determining the nature and type of assistance to be provided to third countries, it should take into account the specific implementation requirements, the capacities of that country and its willingness to trigger and maintain an administrative cooperation with the EC. As the case studies have shown some countries have a well developed MCS capacity in place, and are able to implement a catch certification system easily and quickly (eg. Mauritius, Ecuador and Namibia). Other countries do not, and are expected to have some difficulties (eg. Senegal, Mauritania). Two other external factors also should be considered: the extent to which fisheries controls are decentralised, and the extent of trade dependency on small fisheries. This approach will lead to a more accurate identification of support measures to be implemented, since specific needs will be assessed on a case by case basis.

11 RECOMMENDATIONS

11.1 Information and training on catch certification

In the short term it is recommended that third countries are informed in detail regarding the specific administrative and technical requirements for catch certification and validation, as identified in this report. This should cover: legal framework, requirements for checking location and place of catch, procedures for determining origin, and a system of quantitative cross checks to identify presence and sources of non-compliant raw materials. Particular attention should be focused on the need for integrating information on origins between sanitary, certification of origin and catch certification functions (considered in more detailed below). However, it is important to note that the objectives of these certification systems are distinct and their implementation requires distinct functions and capabilities.

The Commission is therefore recommended to prepare information materials and support a series of information seminars. Where there are issues related to international origin (eg. imports, or landings from foreign flagged vessels) this activity should involve not only fisheries administration, but also trade, customs and sanitary authorities, with a view to developing more effective coordination of information between functions. Fishing and processing industry should also participate in these events, since they will also need to be apprised of the potential need for investment, for example in upgraded traceability systems.

11.2 Short term support for implementation of catch certification

During the first stages of implementation, there will be a need for close collaboration between the parties to consider what is required to set up the system in the first place, and prepare an agreed programme of actions. To assist with the timely implementation, the Commission is recommended to consider the provisions of short term support to third countries as part of this process. This may be used to help third countries address specific problems identified on an *ad hoc* basis. Examples might be dedicated technical assistance for preparation of regulations for certification, or traceability systems for products from small scale fisheries, or certification with respect to exports of fresh fishery products. The administrative cooperation proposed in the Regulation provides the relevant legal basis for such support.

11.3 Longer term support for strengthening MCS

In some less developed countries with weak governance the effective implementation of catch certification is likely to require strengthened fisheries MCS especially to ensure an effective system of landing controls ,Since some third countries have little or no capacity to develop such systems, the Commission is therefore recommended to consider supporting the strengthening of MCS capacity where this is likely to be a significant barrier to implementation. This consideration should include the launch of specific intervention projects. This could be achieved by programming specific regional or national projects or by seeking to launch interventions within existing programmes. In the former case, an example of the specific project approach is provided by the EDF funded EDF project “Strengthening fishery product health conditions in ACP countries” which has supported ACP countries to respond to EC sanitary controls applied to third countries. Planned future programmes which might also provide a vehicle for such interventions are regional programmes such as the APRIS – ASEAN Programme for Regional Integration Support, and the ACP Fish II programme “Strengthening Fisheries management in ACP countries” (which allocates EUR5 million for enhancement of control and enforcement capabilities). Alternatively, support could be delivered via bilateral EC Trade Support Programmes. Some countries have concluded a Fisheries Partnership Agreement with the EC and already receive a dedicated sector support aiming at promoting responsible fishing practices, including strengthening of MCS capacities. In these countries it is recommended that the developments associated with the catch certification scheme be included within the programmed activities.

Where feasible intervention planning is recommended to consider the regional approach, since this reflects the regional needs for coordinated approach to IUU controls. There is considerable

scope for integrating the development support with existing regional cooperation on IUU fishing, such as the 10-country Regional Plan of Action on IUU fishing under the auspices of the Asia Pacific Fisheries Commission (APFIC) or the Indian Ocean MCS programme supported by the EC. However, some critical sub-regions in respect to IUU fishing still lack a credible regional structure for coordinating MCS activities. This is notably the case for Africa where neither the CSRP (West Africa) nor the COREP (Gulf of Guinea) have the capacity and/or the mandate to strengthen the MCS regional framework.

In all cases, there is a need for a coherent approach to the planning of the fisheries measures, development assistance and trade support programmes, to account for the strengthening of fisheries MCS capacity, and to ensure that certification needs are met without disrupting trade. Special planning attention is required in countries with small scale fisheries dependent on EC exports, since the people involved in these are most vulnerable to the impacts of implementation failure.

11.4 Centralised v decentralised fisheries management

Countries with a decentralised fisheries management system will have much more difficulty implementing the catch certification and strengthening MCS systems than those with a centralised system. Limitations of governance in the implementation of the fisheries controls will be much harder to overcome when dealing with devolved regional and local governments. Such countries will require additional support in order to address the additional level of communication and control required and ensure that staff are properly trained. It is recommended that this factor should be taken into account in the allocation of priorities and resources for assistance.

11.5 Implementation in respect of small scale fisheries

The study has identified that certification and validation of products from small scale fisheries could present a difficult challenge for some third countries. Here there is a possibility for a third country to adopt an approach in which the products from a defined supply chain, and which meet certain criteria, could be considered for generic certification. Of course this approach should only be applied where there is a limited risk of illegal fishery products entering the EC supply chain. An example of such a procedure is provided below. This could provide a generic template for the design of country specific procedures within the frame of administrative cooperation between the parties.

1. Identify the export marketing channels which link small scale fishers to the export market

Not all small scale fishers supply export markets; in fact most small scale fishers in third countries cannot supply the EC marketing chain. Those which do will be limited to specific locations (for example limited by access, ice supplies), specific gears/target species, and they maybe linked to specific approved and registered intermediate traders or groups of traders (through family or ethnic links). On the other hand, some exporters may only use products from industrial fisheries; others may use a mix (where different qualities from different suppliers allow a differential marketing strategy). Therefore the first step is to identify all products consigned to the EC market which may contain fishery products from small scale fisheries.

2. Define the participants in the supply chain (vessels, intermediate traders, export processors)

The key task here is to identify and characterise the supply chain, by tracing back from the export processor through the intermediate traders, and to the groups of fishers which supply them. Thus for a specific exporter or group of exporters in a region, each may have several suppliers who are intermediate traders. These may be specialists, in either species or areas where they procure raw material. These should be identified (for example fishing villages, landing sites) and registered. Each of these groups of fishers who catch the species should be characterised in as much detail as possible (number, names, vessel registration etc).

3. Require minimum conditions of traceability to be placed on the supply chain

The supply chain, once it is characterised should have minimum conditions of traceability applied. With product from most small scale vessels, in most cases it is probably unreasonable to expect that vessel level traceability be implemented, simply because the practical difficulty of maintaining separation between a large number of small batches would be impractical and expensive. Therefore an alternative "minimum level of resolution" of traceability should be defined, for example landing site, cooperative, or home village of the producing vessel. This then defines the unit of separation of batches to be applied throughout the chain (including to export). There is a need to design rules to maintain the integrity of the supply chain (ie. to ensure that product from external sources cannot enter the chain). A mandated standardised approach to batch coding would also probably be beneficial. This is analogous to the chain of custody concept applied by the MSC in ensuring that only products from MSC certified fisheries are consigned to the market. The rules should require for example, that only the defined species obtained from the defined supplying villages (or other base unit of supply), can be used for supplying the EC market. The scope of the supply can be adjusted (with suppliers added or taken away) but only with specific approval of the Competent Authority, since they must also check compliance with fisheries rules (see next point).

4. Undertake periodic recorded checks to ensure the legality of catches and the integrity of the supply chain

There must be an evidential basis for the issue by the Competent Authority of a certificate in line with the regulation 1005/2008. Thus once the production units are defined (villages/regions/vessels etc), then there is a need to assess the legality of the catches which are entering the EU supply chain. This will require a periodic inspection to ensure that the fishing operations are in compliance with the legislation. These requirements can be no different from the normal national legal requirements applied to all such fishers. However, the checks may be need to be more frequent, or there may need to a more detailed record of findings than required for the domestic control programme. This is because a structured recording of findings (both compliance and non-compliance findings) is an essential step for verification should a particular export consignment be challenged by an EU MS as to its IUU status. The frequency of inspections, content, inspection forms etc. would all follow written guidelines expressing normal inspection principles, and in all cases should be determined by risk profiling, which takes into account the likelihood of IUU, including the compliance history. The inspection should also cover the integrity of the supply chain (to ensure product is not leaking in from other non-authorised sources). Here a quantitative cross check on quantities traded (purchased cf. sold) by intermediate traders should be undertaken.

5. Validate catch certificates as being from supplied from approved supply chain for small scale fishers

The conditions are in place for the Competent Authority to attest that a specific export consignment from small scale fisheries meets the conditions of catch certification as set out in 1005/2008 where:

- the group of fishers which supply the product has been inspected and found to be operating in compliance with the national legislation
- the supply chain is found to not permit the export of products other than those from the compliant producers.

This attestation can be applied generically (for example *"the products are derived from economic operators in small scale fisheries subject to inspection and approval by authorised officers of the Competent Authority, and found to be compliant with national legislation")*, thus obviating the need for individual catch certificates.

11.6 Development of generic implementation tools

There is no reason why the approach outlined above for defining approved supply chains (either individually or collectively) cannot be used for other supply chains, including industrial fisheries, which are subject to clear definition of source vessels, and good levels of compliance and supply chain integrity. Each situation can be assessed on its merits. The development of generic tools which establish a framework for such a system is therefore recommended.

These tools might include:

- model regulations for certification system, traceability requirements etc
- model inspection forms for traceability and supply chain integrity
- model traceability system for enterprises in the supply chain
- standard methodologies for assessing IUU risk
- standard methodologies for assessing risk of supply chain integrity failure (e.g. empirical survey method for assessing proportion of product from non-certified origins.

11.7 Anti-fraud measures

There is a risk that the measure may introduce a secondary market in validated catch certificates. Specific counter measures will be required to prevent the fraudulent use of catch certificates. These should include both soft approach (information, awareness building, support for improved transparency of fisheries operations, transparency incentives etc) as well as a hard approach (specific cross checks, sampling and in-depth forensic investigation of specific export consignments, highly publicised prosecution of offenders). A significant multi-lingual resource in this respect, which deals with transparency in fisheries certification, is already published by the EDF project “Strengthening fishery product health conditions in ACP countries”. It is recommended that this should be usefully employed in information dissemination activities to be undertaken by the Commission in the preliminary period of implementation.

11.8 Coordinated approach to controls on origin for indirect imports

Control systems which relate to origins of fishery products are already nominally in place in all third country suppliers of fishery products to the EC, considering sanitary controls and certification of origin. However these controls are not always implemented effectively and there is an opportunity for an improved and coordinated approach, where checks made by a single inspection body (using information from sanitary, certification of origin and catch certification systems) to meet information requirements of competent authorities in each of these areas. The approach is particularly important in third countries involved in indirect exports to the EC.

It is therefore recommended that the Commission promotes a structured approach to improved controls of origins in the dissemination activities to be undertaken. For example, third countries may be encouraged to consider the creation of inter-ministerial bodies (involving notably Fisheries and Customs Authorities), and invest in information systems, to ensure that the relevant data is gathered, assimilated and disseminated in a structured way which meets the requirements of the relevant competent authorities, including for catch certification. In countries in which exports have a high import dependency, the development of inter-ministerial control systems to assure origins could address the issues of complexity of controls systems, and the current lack of capacity to identify fraudulent claims regarding origins.

11.9 Third party voluntary certification

Most private certification schemes for fishery products (for whatever purpose) require full traceability (or “chain of custody”) in order to establish the link between the certified consignment and the conditions at origin (be they related to food safety, sustainability, dolphin friendly). Where certification is undertaken by accredited third party bodies, the systems have a high degree of integrity and are effective in preventing non-compliant products from reaching the market. In such cases many of the conditions for the catch certification under the Regulation are already in place (the exception being the validation of the flag state). Operators can therefore build on these systems for implementation of the IUU regulation requirements.

11.10 Aquaculture species

In some countries (e.g. Ecuador, Thailand and Indonesia) aquaculture products feature significantly in the EC trade. They are excluded from the requirements for catch certification. However, in some cases, the culture species are the same as supplied from marine capture fisheries. The production method is required to be declared as part of the labelling and sanitary conditions, but additional measures may be need to ensure that such declarations are true in relation to catch certification, since here there is a clear incentive to mis-declare marine products as farmed.

11.11 Fresh fishery products

Some countries have substantial trade with the EC in fresh fishery products, consigned either by air (long distance, such as Ecuador) or short haul (such as Morocco). Sometimes the delay between landing and despatch of a consignment is very short (a matter of hours). It will not be possible for importers to comply with the requirements for submission of the catch certificates at least three working days before arrival of the consignment, since the catch may not be landed at that time. It is therefore recommended that the administrative cooperation offered in the Reg. 1005/2008 considers way to ensure that these requirements do not unduly impact on this trade.